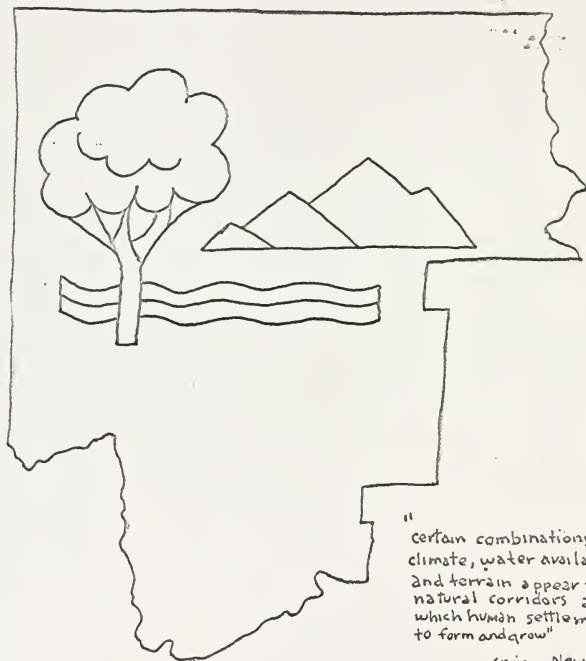


MONTANA STATE LIBRARY

LINCOLN COUNTY FIRST YEAR STUDY PLAN



"certain combinations of climate, water availability and terrain appear to act as natural corridors along which human settlements tend to form and grow"

(Kaiser News)

Lincoln County United Planning Board

FINAL REPORT

Lincoln County First Year Planning Program

Prepared For:

Lincoln County United Planning Board

By:

LCUPB

Planning Staff

Planning Director . . . Dan Garvin

Secretary Connie Radich

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June, 1974

Lincoln County United Planning Board

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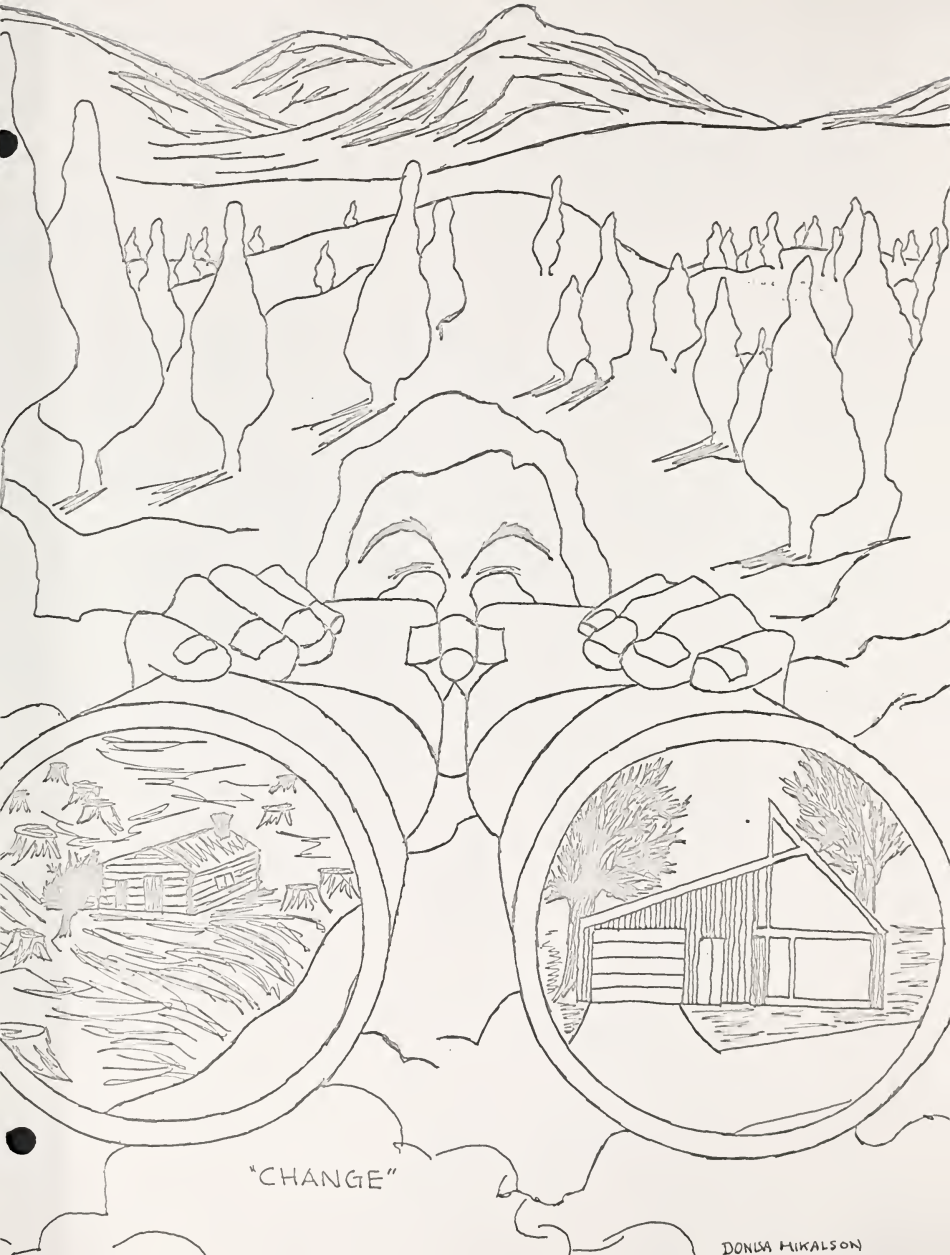
David Howard

Walter Hinkley

Dan Garvin

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"CHANGE"

DONNA HIKALSON

GENERAL DESCRIPTION, INTRODUCTION, AND GOALS

Descriptions:

Lincoln County, formed in 1920, is located in the most north western area of the State of Montana; The County contains 3715 square miles or 2,377,600 acres, is more or less rectangular in shape, and is bordered to the north by Canada's Province of British Columbia, to the west by the State of Idaho, to the south by Sanders County and has as its eastern neighbor the County of Flathead.

Major access routes to Lincoln County are provided by U.S. Highways #93 and #2 both of which are oriented to Northwest - Southeast traffic, although (nationally) highway #2 is an east - west link and highway #93 is a north - south connector. Lincoln County's two population centers, located 65 miles apart, are connected by State highway #37. The Burlington Northern Railroad offers service to the County. There is no regular air service located in Lincoln County, however, there are three public landing fields located one near each of the larger incorporated communities of Aurelia, Libby, and Troy.

Lincoln County is essentially a giant forest management area owned, for the most part, by the federal government. The secondary industries include farming, ranching, and mining and represent the remainder of the economic base. The largest single lumber mill in Montana and the largest vermiculite mine in the U.S. are located in Lincoln County. Very recently the

Kootenai river, the major drainage in the county, has been dammed, just northeast of Libby. The resulting reservoir, when full, is 90 miles long and winds its way north through the narrow Kootenai Valley and canyon to spill for 40 miles of its length into the broader Kootenay Valley in B.C. Canada. The Dam has successfully reduced the flood hazards and will soon be producing power for the Bonneville grid. The reservoir will provide a diversified opportunity for water sports and recreation in coming years.

Topographically, Lincoln County lies across the foothill and upper western ranges of the Great Rocky Mountains. Deep, fairly narrow tertiary valleys bisect the county offering about 25% of the land area for human settlement and travel opportunities. The dramatic topographic variation creates dynamic weather patterns. For example, the precipitation varies from about 20 inches per year in the valley floors to over 100 inches per year on the mountain tops. The - 30° lows in winter slowly give way to +100° temperatures in summer leaving a short growing season but creating spectacular spring water displays and fall colors.

Introduction:

The uncontrolled growth of our rural areas during the last fifty years has precipitated a vast number of interrelated problems.

These include decentralized regional population, disallocation of our resources, housing shortages, rural and urban slums, and degeneration of our environment. Heretofore, we have failed to control or influence these areas due to the following factors:

A lack of comprehensive information on a broad and inter-related regional basis;

The accelerating growth rate of our industrial activities, population base, and associated social, physical and environmental problems;

The increased time necessary to formulate and implement solutions due to increased complexity.

These factors have combined to make our existing planning practices cumbersome and obsolete. If this trend is to be reversed, it will require the development of comprehensive planning processes and management vehicles that are continuous in nature and that can formulate and implement solutions as fast as these problems are recognized.

Lincoln County and its four incorporated municipalities have attempted, on an individual basis, to plan their future development. While each of these individual programs have provided a basis for decision making on a local basis, none were designed to provide a regional over view. In recognition of the need to formulate intergovernmental solutions to county-wide problems, the Lincoln County United Planning Board was formed in 1973. Its goals were:

To establish an agency, based upon the principle of equality of membership, to study and identify those mutual problem areas requiring action on an area-wide basis;

To develop long-range plans for the most effective course of action to meet those needs;

To implement these solutions by cooperative working agreements utilizing LCUPB as a vehicle for implementation rather than as a substitute for local governments.

During the past year, LCUPB has worked with its member cities and Lincoln County to promote these goals. As part of this effort, LCUPB has aided in the formulation of Joint Car Plan - Solid Waste Systems - Annexation Studies and Subdivision Regulations.

The planning system outlined in this work program is the result of these guidelines, the immediate needs of Lincoln County, and the known funding philosophy of the respective federal agencies.

General Solutions:

The basic purpose of a planning process is to predict the growth rate of various societal activities and develop comprehensive plans to insure their development in an orderly and economical fashion in concert with available resources. In the past, planners have utilized relative growth rate information to develop programs based on discreet steps. A pre-selected time frame of 20 to 25 years was adopted and a program was designed to meet estimated needs for that period. At the

end of each planning period, information was re-evaluated and a new comprehensive plan was prepared for the next time frame. Throughout this process the analytical tools, information systems, and management vehicles were of secondary importance because they were considered only as a means to an end. The relevancy of the proposals in the comprehensive plan, but not necessarily the degree of implementation, depended on the planners success in predicting the areas future needs at one point in time.

In addition, it must be recognized that any plan, no matter how valid and accurate it might appear when written, can be rendered obsolete by a number of factors outside the control of the local agencies. Generally these comprehensive plans have been prepared by outside consultants who failed to document the analytical tools and information systems used to develop the plan. The obvious result of such an approach is that the local jurisdiction, not having access to the consultants decision making criteria, analytical procedures, and information systems, was left with a static plan limited to major overhaul at great expense.

Solutions for Lincoln County;

It is apparent, for the following reasons, that the comprehensive plan must be more dynamic and responsive to change

than has been the case in the past;

It depends on outside factors and thus necessitated constant revision, technological change, specifically the rapid growth rate of our industrialized society, has shortened the allowable planning period.

Therefore, the mechanisms and tools have equal, if not more, importance than the plan itself, at least during the formation stages.

The staff is not implying that it intends to neglect the plan, a workable and viable plan is still the only valid output of the planning process, we are merely trying to put the two in their proper perspective. The program described in this report, therefore, shifts away from the planning base on discrete steps to a dynamic and continuing process.

Objectives;

The overall objective of the staff's approach is the formulation of a continuous planning process that will maintain its vitality beyond the life of this project. The specific project objectives are based on;

The development of such a process,

The identifying solutions to the problems outlined in the first steps in this program,

And responding to the six fundamental purposes of a comprehensive planning program as defined by the Department of Housing and Urban Development.

In other words, the planning board proposes to;

- Develop a dynamic information system that will be capable of keeping necessary data up to date so as to permit a continuous re-examination of the plan and its principal elements.

Develop a decision making process and management system that is;

- Receptive to the community goals,
- Effective in formulating action policy decisions,
- Capable of utilizing the I.S. to permit re-evaluation of the plan,
- Able to promote and implement the plan within the given governmental restraints.

Prepare a comprehensive plan for Lincoln County that;

- Sets forth principal goals for future socio and economic and physical development,
- Recommends a program to achieve these goals,
- Provides a plan of action for their implementation.

The Lincoln County United Planning Board approach to the planning process is based upon a close working relationship between staff planning board members, and the general public.

Program Design;

Program design is principally concerned with evaluating the elements of a comprehensive plan and assigning a special level of effort and priority to each element. These assignments and priorities are based on community goals, immediate needs,

and compatibility with program design and funding requirements of the respective federal agencies. We have attempted to integrate the basic requirements for comprehensive planning into our basic program design. The actual assignments have been completed by the senior member of the Lincoln County staff. The basic responsibility of this effort includes but is not limited to: Establishment of an administrative organization for the program, deliniation of research requirements and emphasis outline of a manpower utilization schedule for the planning board staff, establishment of a budget control system.

Concurrent with this administrative and programming effort a survey of data availability has been undertaken. Existing information levels and new research requirements were examined and evaluated by means of the planning studies information prepared by the Northwest Montana Regional Planning Association.

On the basis of our preliminary investigations we believe that the most practical assignments would be based upon a varied approach. Such an approach requires (bearing) the depth of research and the level of effort devoted to each respective element of the general plan. Specifically, we recommend that one or two elements of the general plan be carried through the implementation stage during the course of the first year. The

advantage of such an approach will; alleviate the county's most pressing needs, provide Lincoln County with the experience of formulating and implementing a specific plan from a given information base, document these techniques so that the process can be duplicated in implementing other segments of the general plan, test of validity of the continuous planning process.

First Year Study Design:

The major study content of this document includes statements on Land Use, Housing, Demographics, and Economics.

The land use planning element contains research in the areas of public facilities and utilities, urban and rural land use patterns, the transportation framework, physical limitations, and recreational opportunity. The land use data that is put into the text of this report has been distilled from a broad array of data sources. The trends and limitations defined and the opportunities recommended here are preliminary in nature and will require additions to material and analysis in the future. The housing study reports housing condition and availability. The recommendations of this study are comprehensive and implementation procedures clearly outlined. Implementation, if seriously pursued, will correct the major problems defined. The greatest obstacle to plan implementation is the lack of official housing structure standards. Without viable standards many federal programs for low income loans and grants to support a code

enforcement programs are impossible.

Demographically speaking, the enclosed research defines and predicts existing condition and future trends of population. Upon this base rests the relevancy of every recommended action in every plan element within this and future plans.

Economics - A base plan to define economic dynamics and inter-relationships. This element contains the development of a continuing system to define and understand major industrial activity and governmental influence. Such an understanding will direct us to the formula for diversifying and stabilizing the major money input in this county.

Goals - One shining statement rings from the mountain tops to the valleys "protect individual freedom". The staff will define therefore, as few common responsibilities as possible.

Hopefully, the common purposes and implicit responsibilities will stabilize and conserve our human and physical resources. Specific goals statements will proceed and control each major planning element.

PLANNING ELEMENT I. SUBDIVISION ORDINANCE

Goal Statement:

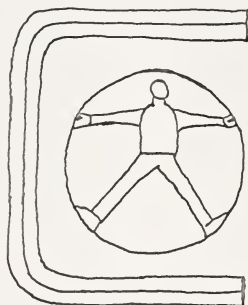
Develop as simple and as equitable a subdivision ordinance as possible while insuring maximum protection to county resources.

Subdivision Ordinance Recommendation:

The staff has recommended to the county Planning Board that the minimum Official State of Montana standards for regulating the subdivision of land to be adopted prior to the July 1 deadline. Substantial work was done to establish a comprehensive adaptation of the '73 legislation "SB 208" for county needs. However, with the new '74 legislative change "HB 1017" there has been insufficient time to get the official law changes incorporated into the staff's original proposal, distributed, and get review and approval by a wide cross section of interested citizens.

The staff prepared subdivision regulations will continue to be reviewed by concerned persons and organizations so that the adopted minimum regulations may be made more comprehensive within the next fiscal year. Copies of the staff recommendations are included in the static appendix to this text.

HOUSING



Shells-This is defined as shelter in any of its forms, natural or man-made. They are systems for homeostatic support of an organism whose tolerance to bodily Thermal change is narrow. Secondary functions performed by shelter are biological, social, and communicative

(Kaiser News)

PLANNING ELEMENT II. HOUSING STUDY

Goals:

A strong bias by rural property owners "not to be categorized" has lead to the strict application of the definition for neighborhood. Therefore, except as the rural individual housing units are generally documented within the enumeration district limits of the 1970 census reports, no staff survey has been conducted in the "rural" community, except where four or more units are located within an area diameter of 660 feet. The "goal" and direction of the housing study as reflected in the public meetings and individual contacts is simply to define the common responsibility for housing where people have chosen "to live in town". The choice to live in "town", it is felt, suggests some individual responsibility to the community at large. Common responsibility for water and sewer service, and fire protection have been met in the incorporated towns. There continues to be substantial disagreement about the individual "right" to abandon or live in substantially deteriorated structures when such structures debase surrounding property values and contribute to the "blight" of a neighborhood and the larger community. The staff role in this debate will be to seek logical conclusions based upon the evidence of this report.

Study Methods:

The basis for this study are the staff neighborhood, individual housing surveys, and the U.S. 1970 census counts #1 and #4. The theory for developing this study by the staff is that the most obvious problems of housing conditions should be solved first. Therefore, using the following format and the pre condition of goal, the staff time was allocated using a screening process to define the "primary areas of concern".

BLIGHT PROFILE:

What is Blight: Blight is a broad term for a very complex cause and effect relationship. Until we know more about these cause and effect relations, we can only deal with visible signs based on known economic and social common sense treating both cause and effect.

Generally, blight is defined as economic, functional, and physical deterioration or obsolescence. Economic, in that supply and demand have eliminated such areas from a healthy market. Functional, in that usage had become limited and inflexible. And physical, in that decay is evident.

F. Stuart Chapin feels that we might fight simple and complex forms of blight. "Single forms of blight include such physical characteristics as structural deterioration, missing sanitation facilities, structures in accumulations in yards.

Adverse environmental influences such as noise, odd playgrounds, public water and sewage systems, and adequate street and drain facilities. Usually associated with simple forms of physical blight are certain social and economic indicators of blight. Social indicators of blight include presence of abnormally high rates of juvenile delinquency, venereal disease, and similar results from other health and welfare indices; and economic indicators include concentrations of tax-delinquent and tax-title properties, declining property values, and presence of an abnormally large number of housing vacancies.

"Complex forms of blight are said to exist when an area contains a mixture of incompatible land uses, obsolete or impractical layout of lots, blocks, and streets, unsafe and unhealthy conditions existing or possible when marginal land is in use, particularly land subject to floods, marshiness, or tidal flows"*

In its most elemental form blight is usually defined as an economic dislocation of people or resources. The result is creation of unhealthy, unsafe, unmarketable, and unsightly areas reflecting a mood of depression and hopelessness; However, we have not successfully demonstrated the interplay between these complex factors that create blight. But there are obvious signs which result from this cause and effect interaction. The telltale signs are physical in nature and subject to analysis.

*F. Stuart Chapin, Urban Land Use Planning.

In order to identify the areas of blight, therefore, we will rely mainly on physical evidence recognizing that other forces are operating to contribute to blight. This does not suggest, however, that we will not consider every facet of cause and effect when planning for corective action. It simply allows us to identify and categorize neighborhood areas using appearance as an indicator.

What is considered to be a neighborhood: A neighborhood is defined as a single area (consisting of 4 or more living units), often defined by various barriers, in which there is reasonable homogeneity as to land use and type of structure.

The survey will identify the neighborhood but not accept it as the limiting boundary unless warranted. However, neighborhood considerations are important to establish necessary relationships. So neighborhoods must be identified at the outset.

Deterioration defined: Deteriorating--needs more repair than would be provided in the course of regular maintenance.

How areas are defined: Primary or severely blighted areas are specific areas in which boundaries are identifiable between the different degrees of blight. Streets, canals, rail tracks, open space, changes in type and style of structures, different bordering land uses and natural boundaries will act as lines of demarcation. The rating data will determine the level or degree of blight. However, the area of consideration upon which the rating is based will range in size from a blight or areas having at least four different living units (single family or apartment) which are located close to each other but separated physically, to an entire community.

Primary areas will be analyzed on a unit - by - unit basis by the Housing Quality Survey.

Secondary and tertiary areas will be divided by neighborhood and enumeration districts. The Census - Housing Indicator Matrix will explore conditions by ED. The enumeration districts will provide an excellent data base of accurate and detailed information for general consideration and treatment of these areas, including a base for continued data gathering. Procedure: A windshield survey of visible neighborhood characteristics will be conducted. Then, specific areas of primary concern will receive indepth attention and study.

This survey is only for general delineation of priority areas. Once this survey is completed, certain qualifying characteristics may evolve which will cause changes in the ranking. Analysis: Primary areas will be identified and designated as target areas in order of importance. Further studies will relate these target areas to the neighborhood and community, plus define the socio-economic characteristics of the area.

Secondary and tertiary areas will be separated in this preliminary survey. Later counts of census data will further define these areas. Therefore, the indication made on this survey is general in scope and subject to more definitive study as the total picture becomes clear.

BLIGHT SURVEY OF MERCED COUNTY
(Exterior Analysis)

Neighborhood _____ Housing Units _____

Population _____ (1970 Census) Enumeration Dist. _____

Determinates of Blight:

	<u>Good</u> <u>under 5%</u> <u>Defects</u>	<u>Fair</u> <u>5% - 25%</u> <u>Defects</u>	<u>Poor</u> <u>over 25%</u> <u>Defects</u>
I. Level of Maintenance			
A. Walls			
B. Doors & Windows			
C. Roof			
D. Accessory Buildings			
E. Yard			
F. Garbage & Rubbish			
G. Incineration			
H. Safety Hazards			
I. Fences			
J. Broken Utilities			
Total			
II. General Neighborhood Appearance			
A. Street Pattern			
B. Street Condition			
C. Drainage			
D. Landscaping			
E. Neighborhood Facilities			
F. Odors, Noise, or Dust			
G. Community Impression			
H. Economics			
I. Minor Improvements			
J. Incompatible Land Uses			
Total			

	<u>Good</u>	<u>Fair</u>	<u>Poor</u>
III. Use of Structures			
AJ Over-usage			
B. Mis-usage			
C. Occupancy			
D. Lot Overcrowding			
Total	<hr/>		
IV. Substandard Original Construction	<hr/>		
A. Foundations			
B. Utilities			
C. Jerry-built			
D. Walls, Roofs, Windows & Doors			
E. Marginal Land			
Total	<hr/>		

<u>Weighted Overall Rating</u>									
<u>Weight</u>	<u>Section</u>	<u>Items</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>	<u>Weighted Unit</u>	<u>Good</u>	<u>Fair</u>	<u>Poor</u>
40%	I.	10				4.0			
30%	II.	10				3.0			
20%	III.	4				5.0			
10%	IV.	5				2.0			
Overall Rating:	Primary_____		Secondary_____		Tertiary_____				

Remarks:

Boundaries:

DEFINITIONS FOR LINCOLN COUNTY UNITED PLANNING BOARD QUALITY SURVEY

This survey is a modification of the survey form recommended by the California Division of Housing and Community Development. Responses are on a "positive" or "negative" basis. Positive responses are indicated below. A positive indication means that the unit meets the criteria as set forth earning the weighted score. Negative responses receive no score and do not meet the definitions below.

Use of Survey Form

This survey utilizes existing utility maps, census data, a community self-survey and other related studies to correlate realistic evaluations supporting a house - by - house exterior survey. One copy of the survey form is to be used for each dwelling inspected. This includes mobile homes but excludes mobile home parks.

The Survey

Date - indicate month and year of survey

Area - indication of identifiable community such as city or incorporated area. (Important for correlation with Census Enumeration Districts)

County Address Number - corresponds to address given said property by County Planning Department which represents the location and legal address of a given unit.

I. Type of Unit - indicate by "X" which type. Detached house

means a permanent structure standing alone. Cabin represents a summer cabin, migratory unit, or second home having periodic occupancy, and should be separated from type dwelling units.

II. Exterior Observations

Positive
Weighted
Score

A. Structural Deterioration

1. Sagging or Dilapidated Roofing -

The roofing has no visual evidence of sagging rafters, missing or buckled covering, or decay of roofing materials which suggest leakage.

135

2. Non-plumb or Decayed Exterior

Walls - The walls are plumb or straight having no loose or decayed siding.

135

3. Rotted Components - The other

components, including doors, windows, porches, and steps do not exhibit any notable degree of non-protective paint or a breakdown of structural materials.

80

350

B. Plumbing and Sewage

1. Vented - All plumbing and gas

25

vents are provided and extended above the roof and/or three feet above adjacent windows or openings without terminating below roof extensions or overhangs.

50

2. Connected to Sewer Systems -

Structure has individual septic tank, cesspools, or is serviced by a public system (correlate with utility service mapping) note: Whether on Private or Public system.

50

3. Connected to Public or Private

Water System - The structure obtains water from public system or has individual well. (Correlate with utility mapping service) Note: Whether on Private or Public system.

75

200

4. Observable Problems - There is no observable presence of waste products, broken facilities, evidence of improper water importation, or indication of improper sanitation

facilities. Improper facilities might include outhouses, outside bathing, open sewers, water containers lack of hot and cold running water, or over usage of shared facilities.

C. Missing Components - Missing parts or section of various structural components necessary for proper maintenance of safe living conditions.

- 35 1. Doors - None of the exterior doors are missing.
- 20 2. Porches - Necessary porches are safe having all parts.
- 15 3. Steps - Necessary entry ways are provided.
- 35 4. Windows - All windows are in place without any broken components.
- 35 5. Siding - All protective, exterior siding is in place.
- 10 6. Rails - Structure has safety
150 rails where needed.

D. Utilities - Those facilities necessary

for lighting, heating, cooling & cooking depending on location and source availability. If only gas or electricity are used for all purposes, the full score of 100 should be applied. (Examine Utility Company records).

50

1. Gas - Structure has natural gas service or private source.
Note: Whether natural or LP service.

50

2. Electricity - Unit has electrical service.

20

3. Telephone - Unit has telephone service.

120

B. Foundation (Not applicable to Mobile Homes)

50

- .. Continuous - A solid concrete, block, or brick support base surrounds the entire structure with no supports such as piers or posts used to hold the bearing weight of the wall..

20

2. Vented - Ventilation is provided, port two square feet per 25 linear feet, with one vent opening within three feet of each corner.

40

3. Deteriorated - The foundations is solid footing for the structure and does not exhibit settling, cracks, or decayed materials.

110

Note: This section is not applicable to mobile homes.

80

F. Jerry Built - Structures are not assembled according to code from various parts of different structures or constructed in a cheap, careless, hasty manner which tends to deter from overall functional contiguity.

50

G. Compatible Land Use - Zoning - When the existing land use and zoning on which the structure stands conform to surrounding land usages and zoning.

50

H. Environmental Hazards - The surroundings do not present safety and health hazards in the form of poor drainage, deteriorated minor improvements, junk, garbage, incineration, etc.

50

I. Mixed Structural Usage - The resi-

230

dence is utilized only as a living unit and doesn't perform a real function which distracts from its primary purpose.

Grand Total 1160

III. Occupied - Physically occupied, or occupied by virtue of condition. (Curtains, tools in garage - auto, etc.)

IV. Obvious Demolition - An abandon structure which obviously is unfit for human habitation as witnessed by the lack of services and physical condition, this ratio will be made by the evaluator and substantiated only by an infield inspection. However, the obvious uselessness of such a structure as a living unit should be proof of such an observation. Those units which are posted by Public Health and Public Works Departments are an immediate indication. Those not posted by rated "obvious demolition" will be submitted to the Public Health Department for their consensus and possible posting. A "yes" precludes and eliminated Section II Exterior Observations.

V. Rankings: Minimum Score for all dwellings except Mobile Homes.

Standard 1030 Sound Units

Minor Repair 1029 - 850 Basically sound with only minor repair needed.

Major Rehab. 849 - 400 Dilapidated having major deficiencies.

Demolition below 480 Unsound dwelling units which are not economically feasible to rehabilitate and should be destroyed.

Note: Mobile homes may exhibit 110 points less from total score because foundations are not applicable if supported by an undercarriage.

Remarks: Notes on unusual conditions not covered in the above format.

These ratings are to be used to indicate general housing quality and need. "Justification for abatement (or specific technical posting) shall be by complete external and internal inspection by qualified inspectors and documented". The results of this survey will be charted on coded maps to give visual observations. Also, housing quality characteristics will be noted and analyzed. Each survey form will be given a sequenced number for control sake.

LINCOLN COUNTY UNITED PLANNING BOARD
HOUSING QUALITY SURVEY

Date: _____

Area _____ County Address Number _____

I. Type of Unit:

Detached House _____; Apt. _____; Hotel-Motel _____; Duplex _____;
Triplex _____; Mobile Home _____; Cabin _____

II. Exterior Observations

A. Structural Deterioration

1. Sagging or Dilapidated Roofing: Pos. _____ Neg. _____
2. Non-plumb or Decayed Walls: Pos. _____ Neg. _____
3. Rotted or Weathered Components: Pos. _____ Neg. _____

B. Plumbing and Sewage

1. Vented: Pos. _____ Neg. _____
2. Connected to Sewer System: Pos. _____ Neg. _____
3. Connected to Water System: Pos. _____ Neg. _____
4. Observable Problem: Pos. _____ Neg. _____

C. Missing Components

1. Doors Pos. _____ Neg. _____
2. Porches Pos. _____ Neg. _____
3. Steps Pos. _____ Neg. _____
4. Windows Pos. _____ Neg. _____
5. Siding Pos. _____ Neg. _____
6. Rails Pos. _____ Neg. _____

D. Utilities

1. Gas: Pos. _____ Neg. _____ Natural _____ LI _____
2. Electricity Pos. _____ Neg. _____
3. Telephone: Pos. _____ Neg. _____

E. Foundations (not applicable to Mobile Homes)

1. Continuous: Pos. _____ Neg. _____ I. Mixed Structural Usage:
2. Vented: Pos. _____ Neg. _____ Pos. _____ Neg. _____
3. Deteriorated: Pos. _____ Neg. _____ III. Occupied _____ Vacant _____
IV. Obvious Demo: Yes _____
V. Overall Rating: _____

F. Jerry Built: Pos. _____ Neg. _____

G. Land Use & Zoning Pos. _____ Neg. _____ Standard _____ Minor Repair _____
Major Rehab _____ Demo _____

H. Environmental Hazards: Pos. _____ Neg. _____

Score:

Remarks:

I. Level of Maintenance

- A. Walls are damaged and need protective paint.
- B. Doors and windows are broken, missing, or damaged.
- C. Roof has missing shingles with leakage likely.
- D. Accessory buildings are deteriorated.
- E. Yard is ill-kept with litter and overgrown.
- F. There is a presence of garbage and rubbish other than in accepted receptacles.
- G. Incineration is permitted in the yard area.
- H. Safety hazards such as abandoned cars, refrigerators, broken equipment, junk, etc.
- I. Presence of animal or human feces.
- J. Broken utilities (Electricity, Gas, Water & Sewage) which are in misuse or abandoned due to neglect.

II. General Neighborhood Appearance

- A. Disruptive street pattern.
- B. Streets are dirt or in poor repair.
- C. Drainage appears inadequate with an absence of curbs or other drainage facilities.
- D. Landscaping is poorly maintained and littered.
- E. Vital neighborhood facilities, including shopping, recreation, schools, transportation, and health care are missing.
- F. There is a presence of objectionable odor, noise, or dust.
- G. Community impression gives a feeling of depression and despair.

- H. Neighborhood economic appears to be depressed as witnessed by the number of operating enterprises, and presence of viable market play.
- I. Minor improvements such as sidewalks, driveways, steps, and curbs are missing.
- J. Incompatible land uses. For example, a factory or wrecking yard located in the center of residential area.

III. Use of Structures

- A. Over-usage due to crowding, inadequacy of structure size, and level of maintenance.
- B. Mis-usage caused by usage of structures meant for other purposes, mixed use of residences, and usage beyond the point of repair.
Residences are used as or converted to commercial.
- C. Occupancy - structures are vacant or abandoned.
- D. Overcrowding lot with structures.

IV. Substandard Original Construction

- A. Lacks continuous foundations.
- B. Missing one or more utility (water, sewer, electricity, gas).
- C. Jerry-built structures assembled from various parts of different structures or in a cheap, careless, hasty manner.
- D. Walls, roofs, windows, and doors were improperly or inadequately installed.
- E. Marginal land subject to floods, poor soil conditions, etc.

Ranking:

Good - The neighborhood, from an overall viewpoint, has less than 5% of the area exhibiting a certain defective characteristic.

Fair - The neighborhood, from an overall viewpoint, has more than 5% but less than 25% of the area exhibiting a certain defective characteristic.

Poor - The neighborhood, from an overall viewpoint, has more than 25% of the area exhibiting a certain defective characteristic.

Overall Rating of Blight

Primary - Those dilapidated neighborhoods which have scored 50% or more in the "Poor" ranking based on the weighted determinations. Renewal, redevelopment, and major rehabilitation appears eminent over much of the neighborhood. These areas warrant immediate priority and attention.

Secondary - Those neighborhoods exhibiting some deficiencies with less than 50% of the ranking within the "Poor" category with a majority of the ranking centering in the "Fair" ranking. Rehabilitation and conservation are the likely treatment. These are areas which contain islands of blight or are generally on the brink of becoming primary areas over the next five to ten years. However, these areas show promise and should be treated within the near future to prevent deterioration.

Tertiary - The third ranking includes those neighborhoods with sound-standard structures, requiring only maintenance without any major deficiencies or any kind within a majority of the units. None of the characteristics should exhibit a "Poor" ranking. Conservation and normal maintenance appear to be the only necessary action within the immediate future.

Areas of Primary Concern

Town of Eureka;

The area marked E-4 on the Eureka town map is the only area in Lincoln County outside of the Libby and Troy city boundaries,

in which most of the blight indicators are present. The preliminary neighborhood analysis indicates this area is 60% blighted.

One interesting note; Eureka people seem remarkably tolerant to the occurrence of delapidated or poor housing. This observation is supported by the side by side existence of upper standard houses and demolition rated housing. Never-the-less, the 40 to 50 year age of most Eureka houses (about 70%) and the fact that the number of people per household is declining (more dwelling units but less people than 1960 census) suggests that some community as well as neighborhood renewal is required.

Neighborhood A-4 contains 15 housing units and the generalized survey indicated structural and well as neighborhood deficiencies. Maintenance score rated 28 poor, 4 fair, and 8 good; total 40. Appearance score rated; 18 poor, and 9 fair, total 27. Structural use score rated 10 poor, and 10 fair, for a total of 20. Substandard original construction score rated 4 poor, 4 fair, and 2 good for a total of 10. Grand totals; Poor - 60, Fair - 27, and Good - 10.

The detail house by house analysis shows that of the fifteen structures listed in this area one occupied structure should be demolished, eight are considered in need of substantial repair or major rehabilitation, and one minor repair structure

with five standard structures. The mixed uses and lot crowding should be reduced for proper mitigation of conflicts.

Alternative Solutions to Primary Area;

1. Let area continue to deteriorate -
The result of this decision would be abandon housing and utility service and increase potential for health hazard. This alternative would increase taxes on the remaining occupied units in the community to pay for required service.
2. Renew or replace structures - This alternative would result in increased living standards and neighborhood appearance. But it would reduce the ability for low income families to live in this area.
3. Replace structure with multi-family units - This alternative would consolidate utility service increase open space, if the same density per area is used, increase opportunity for low income residence, and improve the general neighborhood appearance.

Secondary Areas of Concern:

Following definitions describe the areas that were classified as in need of some increased management or renewal.

Eureka Secondary Areas -

Neighborhood E-1 contains 9 units. Score totals include, Fair - total 51, Good - total 36, Poor - total 10. Problem areas are the level of unit maintenance and the misuse of structures for secondary uses.

Recommended Action: E-1 should be viewed as a special case since the main access road (U.S. 93) to Eureka fronts all of the lots. Increases in the quality of appearance of this section will benefit the whole town by offering the visiting public a good first impression. Such initial impressions in many cases, will determine the degree of tourist use of town and commercial facilities. Increase in the general level of maintenance of these houses and a reduction of the "non-conforming" uses seem reasonable.

Neighborhood E-2; 16 units. Total scoring, Fair - 34, Good - 45, Poor - 26. General maintenance level low and sub-standard original construction are biggest problems. Located across U.S. 93 from E-1, the same problems are true here, and the same solutions are recommended.

Neighborhood B-5; 56 units. General scoring, Fair - 62, Good - 29, Poor - 6. All areas of the survey seem to be affected. The biggest problems are non-compatible land use and standard grid street pattern.

Recommended action: Increase in general maintenance of structures and reduction of "incompatible land use". Standard grid street patterns tend to increase speed of traffic, therefore, posted speed limits and warnings for children and vehicle operators are needed.

Neighborhood B-6; 31 units. General scoring, Fair - 66, Good - 25, Poor - 6. Poor drainage and minor improvements seem to be the problem.

Recommended action: Drainage study by town should determine solution to standing water problems.

Neighborhood B-8; 11 units. General scoring, Fair - 45, Good - 20, Poor - 34. This area is almost rated as a primary area. Therefore, great attention should be given to increasing the quantity of housing here.

Recommended action: The topography is the major barrier to property improvement. This area should be treated as a primary area since it is close to the commercial center. Choices

regarding future land use should be developed. The number of street intersections that occur in this area suggest that eventual expansion of the commercial area could serve as the renewal effort here.

Neighborhood E-9; 16 units. General scoring, Fair -44, Good - 47, Poor - 6. Major problem is street pattern and street condition.

Recommended Action: Street safety signs posted, increased attention by town hall to street conditions, and a general individual housing unit maintenance.

Neighborhood E-16; 29 units. General scoring, Fair - 51, Good - 46, Poor - 0. Small improvement problems are the major detriments in this section.

Recommended action: Although the community impression is good, small problems with improvements, and non-conforming uses should be looked at.

Neighborhood E-17; 33 units. General scoring, Fair - 54, Good - 13, Poor - 30. This is another area that should be closely watched because blight is developing here. Every aspect of maintenance, appearance, structure use, and construction are

beginning to deteriorate.

Recommended Action: General public improvements such as - street, drainage and private land development deficiencies such as landscaping and incompatible land use, should be corrected. Consolidation of commercial uses must be encouraged.

Rexford; Rexford is a new town and only two houses in a community of 34 dwelling units are considered sub-standard. Continuing town improvements in the form of personal property improvements and community wide landscaping improvements are indications of a positive community attitude.

County Areas:

North Eureka; 20 units. General scoring, Fair - 50, Good - 27, Poor - 15. Safety hazards, because of very poor street maintenance, and very poor public improvements such as streets drainage and utilities severely limit this area. The fact that the streets are not deteriorated and the water systems are sub-standard (no 4 inch mains - required for adequate fire protection), the beginning problems of septic tank failure coupled with a poor drainage potential suggest that a strong community organization should form to solve these problems.

Recommended Action: Formation of a special service districts to attack above mentioned problems through collective financing.

Fortine; 31 units. General scoring, Fair -43, Good -47, Poor -10. Generally a very stable community several houses need repair but the biggest problem is the sub-standard water system which, in the very near future, will limit existing housing and prevent expansion of this community. Recommended action: Create a water service district to buy the privately owned water service and thereby create a funding vehicle to improve the system.

Troy South; 16 units. General score, Fair - 58, Good - 10, Poor - 32. The general age of the area structures and the appearance of substantial structure decay suggest that a renewal effort is needed. All lots front on U.S. Highway #2 making appearance of the subject area critical to the entrance impression for the town of Troy.

Recommended Action: General increase in structure maintenance and a reduction in non-compatible land uses.

1970 Census Analysis:

The census was reviewed and certain data items were selected because of their correlation to area housing problems. The following analysis is general in nature and indicates problems by enumeration districts in the County Areas only. All areas in the following description are outside incorporated town limits.

Structure Condition:

The first census indicator is structure condition as determined by the housing value. Housing within census districts at a value of less than \$5,000 or a rent of less than \$60.00 per month are considered indicators of blight if the number of structure so valued number more than 10% of the total houses counted.

Enumeration district 6 - B in the Eureka Census Division is rated at a +10% low value housing.

Enumeration districts 9 and 10 in the Troy Census Division are rated at a +10% low value housing.

Environmental Health:

The number of plumbing deficiencies can be correlated with problems in environmental health. If more than +10% of the houses are lacking facilities or problem of use such as indirect access to kitchen or bathroom a problem is defined. If over 25% of the houses have such facilities that are deficient a serious problem is present.

Enumeration Districts 4, 5 and 6 in the Eureka Census Division are rated at +10% deficiency.

Enumeration Districts 20 and 21 in the Libby Census Division are rated +10% deficiency.

Enumeration District 10 in the Troy Census Division is

rated at +10% deficiency and Enumeration Districts 9 and 11 are rated at +25% deficiency.

Over Crowding:

Overcrowding of structure by occupants is serious when there are more than 1.51 persons per room in a house. For example a five room house with 8 people living in it is considered to be overcrowded. A problem is defined when over 5% of the structures are over crowded. Crowding suggests economic problems, health problems, and can indicate an inadequate housing supply.

Enumeration Districts 4 and 5 in the Eureka Area exhibit +5% structural over crowding.

Enumeration Districts 19-B and 20 have in excess of 5% structural over crowding in the Libby area Census Division.

All of Troy Enumeration Districts have +5% crowding problem.

Conclusion:

Rural Troy seems to have a severe housing problem in all areas of concern. These problems are compounded by the low income levels in the Troy district and the excess age of the structures. A substantial increase in Troy's economic base or a high degree of subsidy are needed to improve Troy's situation.

Eureka's problems, though not quite so severe as Troy's, indicate that concern should be shown for the trends that are forming. These trends indicate a need for substantial housing replacement and improvement to meet the need of existing residents. Future population increase will be limited by a delapidated housing supply.

Enumeration District 20 in the Libby district must concern itself with increasing the housing supply and solving the problems in environmental health. Generally the Libby rural areas look good.

Economic Market Analysis:

This section gives a brief synopsis of the problems of economics as they apply to the housing market in each of the areas of concern. Generally these analysis will be offered in the Census District boundaries.

FHA Housing purchasing measure is 2% of the annual income. Thus the 1970 Census indicate the following limitations by income to meet shelter costs in the Eureka Census Division.

Chart I.

Eureka Area

				Monthly Ability	Total House Cost
Less than 40 families have a				.50	\$5,400
"	35	"	Subsidized	.63	6,800
			or		
"	16	"	Delapidated	.175	8,000
<hr/>					
"	68	"	Self	1.00	10,000
"	54	"	Help	.125	13,500
<hr/>					
"	51	"	Owner	.150	18,900
Contractor					
<hr/>					
"	128	"	Hired Contractor	.175	22,000
Marginal					
<hr/>					
573		Total			

The remaining 288 families with incomes in excess of \$10,000 per year should be able to provide adequate housing.

Chart II.

Libby Area Market Analysis

Number of Families		Monthly Ability To Pay	Total Shelter Cost
64		.50	\$5,400
67	Subsidized		
	or	.63	\$6,800
92	Delapidated	.75	\$8,000
<hr/>			
84		.100	\$10,800
m 157	Self		
	Help	.125	\$13,500
<hr/>			
172	Owner	.150	\$16,200
	Contractor		
<hr/>			
270	Hired	.175	\$18,900
552	Contractor	.200	\$22,000
	Marginal		
<hr/>			
1458	Total		

1574 families in the Libby Census Division have incomes in excess of \$10,000 per year and should be able to buy adequate housing.

Chart III.

Troy Area Market Analysis

Number of Families		Monthly Ability To Pay	Total Shelter Cost
19		\$50	\$5,400
48	Subsidized or	\$63	\$6,800
26	Delapidated	\$75	\$8,000
<hr/>			
35	Self	\$100	\$10,800
37	Help	\$125	\$13,500
<hr/>			
66	Owner Contractor	\$150	\$16,200
<hr/>			
66	Hired Contractor	\$175	\$18,900
96	Marginal	2000	\$22,000
<hr/>			
393	Total		

205 families in the Troy Census District have incomes in excess of \$10,000 per year and should be able to buy adequate housing.

Shelter Costs and Availability:

A poll at various private and public housing entities indicated that land costs for an average developed lot for single family residences ranged from \$2,000 - \$3,000 with an expected raise to \$3,000 due to inflation. Unit costs were placed at \$12 - \$14 per square foot for conventional single dwellings. Farmers home administration self help projects average \$7 - \$8 per square foot plus "sweat-labor" of owner and administrative overhead. A number of other private pre-fab builders offer units that ranged from \$16 - \$18 per square foot cost plus some labor equity from owner. The average size home was generally 3 bedroom ranging from 1,200 to 1,400 sq. ft., is conventional and 1,100 sq. ft., in Self Help units. Mobile and modular units are beginning to have some new popularity. Also, other costs should be considered in the total market picture, such as maintenance, taxes, insurance, transfer fees, permits, reality fees, escrow, etc.

Estimated Average Shelter Costs For New Housing In Lincoln County

	<u>sq.ft.</u>	<u>unit cost</u>	<u>land cost</u>	<u>total cost</u>	<u>monthly* pmt.</u>	<u>maint.& util.Cost**</u>	<u>monthly cost</u>
Conventional 2 bedroom 1000 sq. ft.	612	\$14,000	\$3000	\$17,400	\$157	\$40	\$197
3 bedroom 1200 sq. ft.	614	\$16,800	\$3000	\$19,800	\$178	\$40	\$218
Self-Help 3 bedroom 1100 sq. ft.	617	\$7,700	\$300	\$10,700	\$96	\$40	\$126

** \$10/minor maintenance

* Month payment includes mortgage payment, taxes, & insurance and is placed at 0.9% of total cost or 9/10% if entire sum were financed. This is designed to give relative estimate. Every loan is unique depending on income level of borrower, interest rate, and subsidies available.

The above averages were obtained from various agencies and from within the County. Staff feels that these are conservative cost estimates with many units costing more depending on construction arrangements and marketing approach taken. Please refer to Merced Region Section for cost versus ability to pay.

Multiple dwelling units allow greater density of persons per land area, offer labor and quantity savings in construction, and can provide a wider variety of facilities. However, the savings per square foot in construction costs averages 10% to 15% less than that of single dwelling units resulting in generally more compact living with smaller floor space per unit when compared to single dwelling units. Once land cost is added the multiple unit is only slightly less costly per square foot unless hundreds are constructed at one time. Numerous surveys nation wide confirm the fact that more than 80% of the American families prefer to live in single family dwelling units due to factors such as privacy and pride of ownership. Yet economic factors do not allow this attitude to prevail in many areas.

Mobile home ownership has become a very popular living style. Further, the cost is within a price range suitable to most budgets. The mobile unit is able to go low enough in price to touch many of the low and moderate income families. Although most mobile homes have smaller living space than regular stick-built homes, their compactness and mobility seems well adapted to low income persons who do not have a lot of personal assets to clutter up space. The mobility is also important since low income families often follow available labor markets. The recent housing need in Lincoln County has been substantially met by mobile homes.

Mobile homes vary in size and cost. The 12' X 60' coach and the double wides are quite popular with the average cost ranging from \$4,000 to \$12,000 depending on size and furnishings. Maintenance is fairly low and can easily be done by the owner. However, durability of construction is low. Payments are reasonable with some as low as \$50/month and even lower if a used trailer can be found. Average space ranges from \$35 to \$55/month depending on amenities available. Examination of the County Planning Departments records show a very substantial growth of single mobile units because of the Libby Dam Project. 20% of all housing is provided by mobile homes. Mobile home living as reported by the County Treasurers office has dropped from 2,600 in 1970, to 1,500 in 1974. This reduction, due to out migration of Libby Dam workers, should be partially recovered by the re-regulation dam construction.

The experience with the mobile home proves that the new pre-fab and modular housing may provide the key, but these factory-built units have yet to be perfected at a reasonable cost. The future seems to call for this type of technology and flexibility in order to defeat the costly, primitive form of construction now being done. The increased durability of these units is lightly desirable if a favorable interior and exterior design can be established. Staff feels confident that the costs of factory-built dwellings will gradually decrease

as the market is tested replacing much of the present construction at a lower price. Ability to pay - economists feel that 25% of a family's gross income could be applied to shelter costs. If over 25% is spent, it has been discovered that other necessities such as health care, diet, etc., are not provided for causing possible damage to the livelihood of the family when continued over a long period of time.

Housing Projectional Need:

Eureka Census Division;

Population projections indicate a need for ten more units to house the anticipated population by 1975; fifty new units to house the projected population for the period between 1975 and 1980; 110 units will be needed between 1980 and 1985. A total of 170 new housing units needed by 1985. The town of Eureka can anticipate the need for about one third of the total north valley requirement of about 56 new units by 1985. Unless some steps are taken to consolidate community resource, however, it may be anticipated that most of the fifty-six units will be built outside of the incorporated town limits. Anticipated figures include the demolition and replacement of existing dilapidated units.

Libby Census Division;

76 new units will be needed by next year; 618 shelters

between 1975 and 1980; and, about 150 houses needed for the period between 1980 and 1985. A total of 844 units needed by 1985. About 700 units will be needed in the Libby city area. most of these units are expected to be mobile homes since a large portion of the anticipated population will be transient labor needed to build the re-regulation dam.

Troy Census Division;

The Troy area will need 183 housing units to house the big population increase due if the mining operation opens near Bull Lake in the next year or two. 64 units between 1975 and 1980; 118 units to meet population increase demands between 1980 and 1985. A total of 365 units by 1985. A small percentage of these units can be expected in the Troy town limits since most of the development activity is occurring in the Bull Lake area and in the Yaak River basin.

Conclusion, Recommendations, Progress:

Bureka Area;

The northeastern Population Center defined in the census as the Bureka Census Division, represents the largest population center defined in this study.

Major problems here are;

1. Age of large percentage of all structures
2. Marginal for sale or for rent housing supply

3. General run down appearance of housing on both the north and south entrances to the town of Eureka
4. Seasonal and national sensitive economic base high percentage of low income families
5. Lack of low cost housing for aged citizens
6. Lack of a coherent government program to support housing problems.

The solutions to these problems are obvious;

1. Begin to replace or renew existing houses with new housing or multi family units including mobile homes.
2. Because the capitol commitment for maintaining the housing surplus is not available, a close attention to probable demand must be maintained so that capitol sources will be available when the demand is up.
3. A community betterment project with subsidy support by local, state, and federal agencies can solve the problem areas. Note; The staff sees this problem coupled with the average structure age in down town Eureka as indicators of a need for a substantial community renewal effort.
4. Encourage the location of those industries that will diversify the economic base and exhibit a low seasonal

and national economic fluctuation sensitivity characteristics. And seek reduction in housing costs by some manner of subsidy.

5. The Senior Citizens organization has defined the need for about 15 low cost housing units to take care of existing and future needs. Local and federal subsidy support is being developed to meet this need.

Libby area;

Note: The Libby City-County general plan defines several programs that need to be undertaken to solve Libby's housing problems. The staff feels, however, that the population projections used to project housing need were incorrect because of the consultants apparent oversight in programming the population increase that should result when the re-regulation dam is built into his figures.

Rural Libby Problems; The very rural low density areas in the southwestern county area have:

- d 1. Environmental health problems because of the lack of facilities
2. Over crowding of this area also suggests health and economic questions to be solved
3. About 250 families need some form of economic assistance or housing subsidy to provide proper housing.

Solutions:

- 1-2. Rural self-help programs including low cost loans and grants could help
3. Either these people are satisfied with their present economic conditions or some increase in job opportunities is needed.

Troy Area;

Troy has big problems and instead of listing them the staff will simply define the basic causes and effects. Solutions are complex and will require effort by all levels of government and business.

Troy has always been a working mans town. This community is a classic example of the problem of a small town being totally dependent on a small extention of a BIG company. When St. Regis reduced its operation and when the Burlington Northern changed its procedures as the result of automation, Troy's economic base evaporated. Never having had medium sized locally owned industry, the load for providing employment fell on several small cedar processing mills. As the private cedar resource is depleted, this form of employment will be reduced.

If people have money enough they will provide for themselves the type of dwelling unit that they want. The need therefore, is to develop a industrial base in the Troy area

that will improve family economics and encourage boosing improvement. The new copper mine near Bull Lake, if opened, can provide some of this money input. The development of relatively high value wood products such as lamenating and window frame and mouldings could provide some economic stability.

This discussion has been one of economics because economics is the problem. If some money is brought to and spent in Troy, on a long range industrial development plan, the housing problems will stabilize and the "real" housing problems will become aparent.

If no new economic systems are developed in Troy, the present trends for aging will be terminal. Large infussions of government money to support housing improvement will be lost if the economy doesn't improve.

Implementation:

A realistic housing policy is necessary. The following range of policy considerations offers some positive approaches in the development of a viable policy format.

Provide Political Strength - In order to promote a balance between private agencies, government initiatives, and offer people a range of choices depending on various interests, incomes, and life styles a strong political helping hand is indispensable. Government must accept, as a basic responsibility,

a positive control of land use and land markets. Regulations must be continually dynamic by way of licensing, standards, taxation, subsidies. This means securing land at a cost which permits a well-planned developments.

Provide Economic Stimulus - More resources must be committed to housing. The key economic regulator of demand is the interest rates. These interest rates tend to indicate the inflationary condition which prices the poor out of the market. These inflationary indicators must be curbed through stabilization of both interest rates and costs. Subsidies will continue at higher levels if these inflationary trends are not diverted.

Guide Development - Government must take the lead in encouraging a variety of experiments and pilot projects. This starts with a policy concentrating first on site design and provision of services. It also means reconsideration of medium-rise buildings with concern for realistic density and social awareness. Cultural patterns should be enhanced by the ordered development. This calls for encouragement of the self-help concept and flexibility in all aspects. Equally important is the commitment that settlement patterns not be so fixed by external authority thereby excluding the creativity of people. Of course, increased creativity in the "governmental" process requires citizen participation and a reduction of public apathy.

Guide Resource Use - In order to preserve the present housing stock, various financial regulations could achieve this by encouraging the developing agency to maintain the quality of the investment throughout the life of the item financed or pay rent supplements to tenants who themselves maintain their rentals. If ownership is to mean anything, we must promote such philosophy so that our homes truly become an intimate expression of man's sense of identity and dignity. Resources must be directed to that basic necessary unit, the neighborhood. The neighborhood must again become the tool for curbing the shapeless sprawl we are experiencing.

What shelter finally gets down to is that we are locked into traditional ways of thinking, derived from ancient and largely agrarian societies, to feudal cities, and to concepts about land ownership and use that may be almost completely irrelevant to our contemporary, highly technological society."

-----Kaiser News/Shelter:
The Cave Re-Examined

Planning is a decision-making process through which a logical progression of events occur (research, analysis, alternative selection, testing, review, implementation, reappraisal, and update of information base). It is a tool which provides you with an efficient system of considering a problem, examining alternatives, and striving to provide a better condition. But deep down most people do not really believe in planning. Some say the information base is always too imperfect while

others claim that special interests control the planning process. But probably the most innate conscious or unconscious feeling is a loss of freedom to control even under the most flexible plan. However, doesn't freedom of choice imply knowledge of the consequences of available alternatives? The present conjunction of modern communications with the massing of circumstantial information has provided man with this knowledge and wisdom, thereby freeing him. The harnessing of our technological innovations under direction of the people can move us to any point we wish to be. Of course, this is a tall order.

What are the "nuts and bolts" of implementing these theory-oriented alternatives? What are the delivery methodologies? The resources available or unavailable to implement alternative-directed solutions are often as elusive and varied as the problems themselves. The following recommendations offer the framework for attaching defined problems on a priority basis.

"The key to success lies with knowledge of problem characteristics, proper resource application, a changing need-oriented plan of action, and a commitment to assigned responsibilities."

----Staff

Organization and Region-Wide Coordination:

How do we get motivated? A definition of role at every level is the starting point to pursue any alternative. This

is a "something for something" world which functions best when everyone understands some basic responsibilities and holds up their part of the bargain in order to gain the benefits offered through such cooperation. This means a struggle between varied interests with a strong spirit or sense of community drawing progress out of a continuing conflict.

The following organizational matrix is suggested as a tool to begin to identify responsibilities, roles, and functions of all entities, public and private, who impact housing in some way. The model presented offers a generalized format for organizing a united, comprehensive approach to solving our housing dilemma.

Standards for Implementation:

- a. As an out-growth of the comprehensive planning procedures, an emphasis should be placed on the consolidation of land resources.
- b. New techniques to provide housing including such factors as construction, design flexibility, new materials, and financing should be encouraged as part of the solution to existing and future housing problems.
- c. Since housing problems are inter-jurisdictional, it is necessary that all regional agencies coordinate programs affecting housing, including adoption of a regional housing code.
- d. Programs should be encouraged that make best use of existing housing stock through rehabilitation.
- e. No demolition of existing units can be permitted until replacement units have been secured.
- f. Housing plans must relate to other elements of the General Plan such as transportation, land use, community facilities, and community appearance.
- g. Tax benefits should accrue to the land owner who improves his property.
- h. Community General Plans should include housing standards consistent with housing needs of all segments

of the community recognizing factors such as age, income, family, and mobility.

- i. Housing standards should insure a decent, safe, and sanitary dwelling that provides for basic needs of the family unit.
- j. Environmental standards should be consistent with regional goals.
- k. Physical improvement standards should be consistent with residential densities and the ability of both the community and the housing consumer to pay.
- l. Emphasis on providing dwelling units should not diminish effort by the community to provide services related to housing, such as recreation, open space, and education.
- m. The relationship of employment, transportation, and housing must be recognized so that economies of scale may relate to these inter-relating systems.
- n. Communities must seek to provide both employment and housing for their residents consistent with freedom of choice, or at least educate residents to qualify for employment even if said jobs are outside the region.
- o. Sites for housing for all segments of the housing market must be located and identified for development.

DEMOGRAPHICS POPULATION STATISTICS
EXISTING * PROJECTED

The 1970 census was taken at a very inopportune time for the purposes of cohort analysis. The Libby Dam was being built in 1970 and the construction crews that were here at that time to a large degree have left the county. Using the superintendent of schools total county population figures, which have proven remarkably accurate over the last ten years, the county has lost 1900 people since the 1970 census was taken. It is impossible without a new census to determine in which age cohorts - or ranges - this loss has occurred. We can guess that the 19 - 45 age ranges were depleted and the 0 - 15 age range, or the children of the workers is lower. For example the school population has declined from a high in 1970 of 5101 to a 1974 low of 4564.- a 537 pupil reduction. 1364 adults therefore, have either died or migrated elsewhere. The bulk of the population loss has occurred in the Libby Census Division. Estimates indicate the following out migration pattern - (the migrations are assuming that death is out migration).

	1970 Pop.		out Migration		Current Population
1. Bureka	3558	-	442	=	3116
2. Libby	12045	-	1264	=	10781
3. Troy	2460	-	194	=	2266

The only cohort analysis that is valid is the existing school attendance figures. Based upon cohort survival charts constructed for each school in the county, the character of the

present population begins to emerge.

First grade enrollment is declining which suggests that the birth rate began to decline at least six years ago. Declining birth rates are a national trend.

Overall grade by grade school attendance shows that the number of students per grade decreases by grade from grade 8 to grade 1. Further supporting the theory that declining birth rates are the reason for dropping school enrollment.

If one or all of the grades are traced according to attendance for the last 4 years out migration by school district and by student age can be followed. The only two school districts that appear to be stable or increasing in attendance are the Yaak and Sylvanite schools. Increased attendance to these schools can be traced to the increased subdivision activity in the Yaak River drainage. The greatest percentage drops in school population are in the district #2 schools with a 37% decrease recorded for Tooley Lake and a 47% loss of students at the Rexford school. The displacement of the original town of Rexford and the resulting disbursement of that population is the reason for the Rexford problem. Tooley Lake indicates both out migration and the overall increasing of age of the area inhabitants as the reason.

One interesting statistic was uncovered in the research

of the '70 census data. Men live longer than women in Lincoln County. Male longevity can be traced, according to the local health authorities, to the hardy nature of the environment and the physical types of work that predominate. This statistic as many know is the opposite of the national trend.

The trend for a substantial out migration of the 15 - 24 age groups continues to be true. The population becomes very stable from age 25 to 54. The problems of health associated with aging increases mortality after the age of 54 is attained.

INFORMATION SYSTEMS BUREAU
DEPARTMENT OF INTERGOVERNMENTAL RELATIONS
MONTANA POPULATION PROJECTIONS

COUNTY POPULATIONS
BY AGE AND SEX
USING MIGRATION-SURVIVAL METHOD

LINCOLN COUNTY

SEX	AGE YEARS	CENSUS 1970	CENSUS 1970	NET 1970 MIGRATION	PROJECTIONS 1975	PROJECTIONS 1980

MALE

	0 - 4	867	908	47	1094	1386
	5 - 9	817	1108	274	1364	1691
	10 - 14	681	1115	244	1190	1168
	15 - 19	453	903	87	1087	1232
	20 - 24	399	516	-152	655	845
	25 - 29	382	646	207	923	1294
	30 - 34	432	634	241	731	821
	35 - 39	394	551	177	714	931
	40 - 44	408	585	166	711	858
	45 - 49	380	539	167	639	753
	50 - 54	339	538	159	652	771
	55 - 59	304	448	114	538	636
	55 - 64	177	313	27	400	496
	65 - 69	200	205	-23	243	302
	70 - 74	158	119	0	149	211
	75 - 79	113	96	-10	96	98
	80 AND OVER	79	57	-12	102	102

	TOTALS	6583	9326	1713	11288	13595
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FEMALE

	0 - 4	840	842	87	1026	1328
	5 - 9	754	1074	311	1346	1693
	10 - 14	653	1097	257	1155	1100
	15 - 19	462	849	79	1028	1194
	20 - 24	367	592	-60	772	994
	25 - 29	375	647	180	885	1189
	30 - 34	366	554	186	706	894
	35 - 39	388	543	170	711	938
	40 - 44	360	511	150	629	774
	45 - 49	363	470	96	555	657
	50 - 54	285	460	115	555	654
	55 - 59	214	375	36	437	485
	60 - 64	152	252	-14	323	406
	65 - 69	137	178	-13	235	312
	70 - 74	101	108	-19	136	178
	75 - 79	70	100	7	116	130
	80 AND OVER	57	85	-10	94	96

	TOTALS	5954	8737	1566	10709	13022
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COUNTY TOTALS	1537	18063	3279	21997	26617
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ASSUMPTIONS: CONTINUED 1960 - 1970 "MIGRATION" TRENDS

INFORMATION SYSTEMS BUREAU
DEPARTMENT OF INTERGOVERNMENTAL RELATIONS
MONTANA POPULATION PROJECTIONS

COUNTY POPULATIONS
BY AGE AND SEX
USING MIGRATION-SURVIVAL METHOD

LINCOLN COUNTY

SEX	AGE YEARS	CENSUS 1970	CENSUS 1970	NET 1970 MIGRATION	PROJECTIONS 1975	PROJECTIONS 1980

MALE

	0 - 4	867	908	47	1094	1386
	5 - 9	817	1108	274	1364	1691
	10 - 14	681	1115	244	1190	1168
	15 - 19	453	903	87	1087	1232
	20 - 24	399	516	-152	655	845
	25 - 29	382	646	207	923	1294
	30 - 34	432	634	241	731	821
	35 - 39	394	551	177	714	931
	40 - 44	408	585	166	711	858
	45 - 49	380	539	167	639	753
	50 - 54	339	538	159	652	771
	55 - 59	304	448	114	538	636
	55 - 64	177	313	27	400	496
	65 - 69	200	205	-23	243	302
	70 - 74	158	119	0	148	211
	75 - 79	113	96	-10	96	98
	80 AND OVER	79	87	-12	102	102
TOTALS		6583	9326	1713	11288	13595

FEMALE

	0 - 4	840	842	87	1026	1328
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	35 - 39	388	543	170	711	938
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	50 - 54	285	460	115	555	654
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TOTALS		5954	8737	1566	10709	13022

COUNTY TOTALS 6537 18063 3279 21997 26617

ASSUMPTIONS: CONTINUED 1960 - 1970 MIGRATION TRENDS

Assumptions made by the State of Montana for age cohort increases over the period of this decade obviously ignore the problems defined in the start of this section. Using the States net migration chart, next years population would have to increase by almost 4000 people. Without a dramatic immigration this figure will not be valid.

Assuming a modified economic - migration - survival projection the Lincoln County population will be 17,065 in 1975 or an increase of 900 persons. The 1980 population will be 19,604 and the 1985 population will be 20,676.

Staff projections by Census District are:

	Existing	1975	1980	1985
Bureka C.D.	3116	3146	3296	3626
Libby C.D.	10781	11011	13174	13700
Troy C.D.	<u>2266</u>	<u>2908</u>	<u>3134</u>	<u>3550</u>
Total	16163	17065	19640	20676

These projections are based upon anticipated economic and population input in the Libby area due to the Corps of Engineers activity on the re-regulation dam, improvements on U.S. Highway 12, and further industrial diversification. The Troy area will be the beneficiary of new population due to the "opening of the copper mine" near Bull Lake. The Bureka Census Dist. is expected to remain relatively stable with minor increases due to

increased recreational and industrial expansion.

The first and fourth counts of the 1970 census are on file at the court house for review by interested citizens. Assistance in interpreting these computer print-outs is available through the local Lincoln County Planning Staff.

ECONOMICS



ECONOMIC BASE STUDY

Goal:

The purpose of this research is to define the existing industrial base of Lincoln County and project future alternatives to industrial development. The goal of this study is to stimulate diversification of industry by encouraging the location of new industrial types that are the most sensitive to the fluctuation on the national economy. The economics and dynamics of industry and government and the individual gross and expendable incomes will be reviewed for clues to future trends. Some mixing of the new and future will occur in this industrial dynamics discussion for the purposes of clarifying certain points.

Timber! - flows in a steady stream from the private and federal forests to the mills and then to the market place. Forest products represent the major economic resource in Lincoln County (about 25% of the employment base) from St. Regis, Ksanka Lumber Company, to Ford Grips cedar specialty mill and the several gypso operations in the woods the renewable forest is, to a major extent, Lincoln County's economic link with the "outside" world.

Hundreds of millions of board feet of lumber are milled, shipped, and sold. Millions of dollars are thereby recieved to

support the local, regional and national economies. A preliminary understanding of this product - money flow is necessary before we can determine what or if anything needs to be done to improve the industrial base.

Value added - means the value added to a raw material by a process or action. For the purpose of this report the value added to timber is defined as the process and actions necessary to harvest and mill. Although considerable value is added to a tree through proper live management, the variables are many and the use of a unit constant figures could be misleading.

Between 25% and 30% of the value of the timber products are added by shipping time. This relatively low value added characteristics of the product means that "total" processing must occur as close to the harvest point as possible. The early consolidation of the bulk and weight is critical to successful profit taking. The competitive pressure developed by this relatively low value added characteristic is seen in the increased automation of the industry and the continual search for opportunities to reduce waste both in the forest and at the mill. As the market pressure increases so will operational consolidation and integration increase. The fact that the timber industry as a whole is extremely sensitive to the minor fluctuations in the national and international economies, is further

proof that total tree management and use is becoming mandatory for successful product competition. For example if Japan can buy raw timber in the United States and Canada, ship this product home to be processed and make money, their product research and development is either much better than ours, or their market is much less competitive. Lucky for us that the comparatively low market competition is the primary factor. Successful product research and development must become a very big factor in marketing techniques in the U.S., however, if we intend to continue to compete with international technology. The pressure of the international market will increase dramatically as the expanding world population demands more of the resource pie.

What does this all mean to the small business man? It means that he is going to have to pool his resources with others to remain an "economic man". Good and comprehensive product and market information is becoming the most important factor to business success and if the small man is not plugged in to this information, he will fail. For example teepee burners should soon be obsolete, not because they contribute to air pollution, but because total product use will eliminate their need. If some burning of non-reclaimable waste is required the heat thus produced will be used to generate electric power, etc.

Services and Marketing;

If the St. Regis operation is 10 on a scale of 10 - and the woods gyppo is 1; - such a scale can be used to describe the degree of use for local goods and services. In other words the "biggies", on a percentage basis, use less local services than do the small operator. Of course the sheer size of the St. Regis operation means that as far as total money spent locally - they spend the most as an individual organization. St. Regis certainly spends more locally than all other operations combined as a matter of fact, since 10% of their operational requirements equal well over 100% of the other mill operations combined.

There is a problem, however, in having one large corporation dominate the local economy. The obvious problem is that a short term economic set back for the St. Regis Co. could lead to a financial disaster for "local" suppliers. Even a minor shift in policy by St. Regis, who's total international resource base ranks in the top 25% of the top 500 corporations in the U.S., could result in a large local economic problem. Study figures indicate that even a medium size mill (45 mil bfy) uses only 35% Lincoln County services. Therefore, it seems obvious that some percentage reduction of the large operator out of the pie should occur for a better balanced economy.

Very simply, the more "healthy" mill operations we have, the more local business will benefit and the larger share of the capital commitment will be made in support of the local economy.

Product Distribution;

Our economic ties to the national and international markets must be referred to before we can appreciate the opportunities for industrial deversification. Since most of the large companies have main offices in the east, New York and Chicago, most of our forest products are distributed in that direction. About 50% of the total Lincoln County wood products are sold east of this state. Western states use about 30% of our product with about 3% sold in Montana. International markets get from between 10 - 12% this our wood, Japan receiving the largest share.

Established trade routes should be used for the most efficient sale of merchandise. According to the study data available northeast and southwest trade areas could be expanded, however, international trade will certainly increase as the world standard of living rises. The orient both Japan and China appear to be likely prospects for increased trade.

Individual Income - Forest;

Table 3

Number of full and part-time wage and salary employment;

<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
1700	1750	1680	1620	1600

An overall 8% decline in forest employment harvesting and manufacturing after 1968 reflects increased automation and the failure of the many small (scale 1-2-3) woods operations to compete with the larger integrated mills.

Table 4

Personal Income 1;

Total	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Total	12,171,000	13,591,000	13,654,000	14,034,000	15,458,000
Per-capita	7159.41	7766.28	8127.38	8668.00	9661.25

Lower employment, higher wages, inflation, or increased higher expendable income. 26% increase in wages about 30% inflation create net loss of 4% real income. Inflationary losses coupled with tax increases, mostly in the area of county property taxes, have greatly decreased expendable income.

Mining:

A non-renewable resource based industry 99% of which is vermiculite - zonolite - MR Grace Company at the present time. American Mining and smelting could about double mining income to Lincoln County IF they open the Bull Lake copper mine.

The vermiculite mine is the largest such operation in the United States. The non-renewable nature of the extractive industries usually means that the on site raw value of the ore is

very high and further, that the mechanical concentrating processes used to further high grade the ore adds substantial value. In the case of vermiculite, on site processing represents the major value added to the product by the WR Grace Co. Other users treat this material in varying ways for use as soil conditioner, and insulation etc. Bulk shipment is permitted with substantial profit remaining. Similarly high graded copper ore will bear the expense of transportation and still remain a saleable product. Iron ore - aluminum and oil are other examples of "raw materials" that are shipped great distances to interum processing centers. Because of this relatively high in-the-ground value, the interum processing centers can be close to the population centers.

Where does all this movement leave Lincoln County? Probably as a mining and transshipment center. The only variable that could increase the raw material processing opportunities is the soon to be increased availability of comparatively reliable hydro-electric energy. Since aluminum is the great electric power user, and since Columbia Falls already has an aluminum plant - locally based interum processing or metal fabricating plants are probably a long way off.

As the valuable mineral resource of the U.S. and the world becomes harder to find, lower and lower grade ore will become more and more valuable. Although the mineral resources potential

of Lincoln County have been thoroughly analyzed, ERTS Satalite imagery or other future technology may find new mineral wealth, especially in the areas of igneous extrusion. These igneous surface extrusions are shown in the geology map and are marked Igi and Ige.

Automation and Manpower;

Automation will increase - manpower will stabilize. WR Grace is in the process of installing "Brand Spanking New Equipment". After the installation crews are finished the manpower will stabilize. The new Bull Lake copper mining operation should have a stable employment base for the life of the ore vein - reported to be 15 years.

Source of Goods and Services;

The tie between market and supply is obviously strong in the zonolite business. Most of the product is marketed in the southwest and most of the supplies originate in the southwest. This is called round-trip economy or "I have good friends in L.A..".

Since copper prices are internationally determined the sale of copper is very stable. In the past this very stable market has meant that very little research and development of new products has occurred in the copper business. If any opportunity exists for a secondary or support service in addition to standard mining supplies, a locally based copper products

Research and Development organization could be the one. Similarly research and development for vermiculite could also provide a local opportunity for service base expansion.

Table 5

Number of full and part-time employees;

<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
403	392	382	---	---

Decline in employment due to increase in automation.

Table 6

Personal Income;

	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Total	2,970,000	3,326,000	2,567,000		
Per capita	7369.72	8484.70	9102.83	--	--

Steady increase in personal income is defined as a reaction to the general inflationary spiral.

Farming and Ranching:

In Lincoln County we're raising cows, 85% of the ag. crop. An occupation that, in the absence of federal price support, is the biggest gamble around. Weather controls crops and feed availability. Availability controls price and vice-versa. This "universal" supply - demand economic law is nowhere more brutally demonstrated than in the perishable commodity business. Part of the problem is the historic individualism of the farmer and his resistance to technological change. A greater grower -

control of the market and a greater grower - control of the environment would do much to stabilize the market prices and reduce wildly fluctuating demand and the general inflationary trends. Value added characteristics are almost impossible to determine these days since profit margins often fluctuate more than 100% in a six month period.

Automation - Manpower;

Yes you should, but you probably won't. Old fashioned seems to be the mark of the man in this business. And the egg - chicken who will come last, riddle keeps the producer in the middlemans pocket. However, spiraling land prices, and limited arable land availability, will soon begin to limit both feed and cattle production. The market will stabilize because the world will be wanting more to eat than the world can produce. Even now, in a world of steadily increasing population, producers co-ops should be able to anticipate the market and self regulate production by increasing the, as yet unaffordable, advanced crop and production techniques.

One of the recently talked about agricultural improvements is increasing the water availability to the north Tobacco Plains area. The Glen Lake Irrigation District, one of the bright spots of farmer cooperation, and the Soil Conservation Dist. are studying the feasibility of either using Kocanusa reservoir

water or rerouting Pinkham Creek to supply irrigated crop and pasture land. 5000 additional acres are said to have expanded agricultural potential. The prospect of doubling or tripling present cow per acre ratios should be realized. If this water project is completed secondary processing of crops and cattle should be possible. Abattoirs, tallow works, hide processors, alfalfa pellit mills, and feed lots are some of the processes that could result. Tripling agricultural produciomm should mean a \$3,000,000 dollar cattle business - a \$1,000,000 crop and \$18,000 average farmer income. The secondary industries should add another million dollars to the agricultural coffers.

Service Industry;

70 percent instate - 95% out of county. Flathead County seems to be the major beneficiary of the farm buyer. Increased local production should result in locally based service and supply business.

It probably seems as if the Planning Staff has a low opinion of local farming operations. The staff, to the contrary, has tremendous admiration for the bull dog tenacity of the local ranchers and farmers because, in the face of staggering odds, he has managed to expand his operations by steadily increasing efficiency. However, the increasing urbanization in this state has created pressures to reduce the free range. A substantial

curtailment of free range will have the greatest impact in the mountain areas of the state because of the inherent conflict that cows have with recreational home owners and tourists. Therefore, consolidation and more efficient range management seems to be the only answer to the need for increasing production.

Agriculture can be the stabilizing economic force in the northeast county area. The great potential that increased water use creates could offset the reduced timber harvests and create a healthy economic condition in the Bureka Census District. Good access to the markets in the Flathead and Missoula further support the concept of agricultural growth.

Table 7

Number of Farm Proprietors;

	<u>1967</u>	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>
Farm Proprietors	251	231	210	208	203

Farm ownership has decreased as the result of consolidation. However most of the farm owners still do not earn their primary incomes in farming. Further, a decreasing labor force enforces the theory that more and more owners are getting income in places other than the farm.

Table 8

Farm Income

By farm unit and worker;

	<u>1970 Farm Unit</u>	<u>1970 Farm Worker</u>
ED Eureka	.369,600	.105,200
Libby	.13,000	.0
Troy	.49,350	.62,200

Information from the 1970 census does not match income information included in the recently recieved, income - employment type report from IGR. '70 census information is used in table 8. The Tobbacco Valley contains 74% of all income producing agriculture in Lincoln County. Projections suggest that future economic diversification in the Eureka Cenusus District will be increasingly dependent on farm - ranch operations.

Christmas Trees:

Ah yes, the Christmas Tree Capitol of the World - only two major commercial buyers still yarding in the Tobbacco Valley when 20 years ago there were 7 or 8. The national forests are viewing the sale of Christmas tree stumpage as an unnecessary bother and the cultured Christmas tree, with its ease of harvest and handling, plus relatively high sale price seems to be - "doing in" the wild tree market. With the prime private Christmas tree land being subdivided at 2000 acres per year, there

doesn't appear to be much future for large scale wild Christmas tree managements, especially since the small private woodland has been producing almost 100% more bales of trees a year than all other ownerships combined.

A total business of about \$1,000,000 per year in 1971 will be cut in half by 1975. It is possible that as the result of a reduction of the Construction employment associated with the Libby Dam project, that the laid off worker will have an interest in Christmas tree harvest.

Again as recommended for general agriculture - a marketing co-op is suggested as the most efficient method of selling trees.

Government:

Taxes - taxes - taxes what are they for - what do they buy. Last years Public Service Responsibility study listed every public service performed by every level of government. Sooo - taxes are for public service. What taxes buy is another problem altogether. Understanding what the quality of services compared to the efficiency of operation is a problem. Definitions and the interpretations of definitions controls public service quality and efficiency. Sadly the general public has no clear understanding of how these definitions are developed or used by the public official. The federal government and usually

state government have volumes of definitions that have been written to implement public service laws. The feds write their definitions (called administration regulations) as long and as complex as possible. This complexity is required, they say, to guarantee that there is as little as possible room for varying interpretations. This reduction in "interpretative" variation, they conclude, guarantees that all laws will be applied equally throughout the U.S. What these complex definitions, in fact do, is to protect the jobs of public officers by being so complex as to be beyond the average citizens understanding, and thereby require that he (the officer) "interpret" these regulations for the citizen. Right back to where we started and no farther ahead, right?

At the county governmental level, many officials find themselves in the same position as the average citizen. This is true because the avalanche of legislation pouring from the U.S. congress and the State legislature is so great that county employees just do not have the time to become aware of all of the real and potential impacts. Usually there is no money made available by the legislators, through means provided by increased efficiency at the state and federal levels, to pay for local understanding much less law implementation. So what can we as citizens do about all of this.

DEMAND THAT THE LEGISLATIVE PROCESS CLEARLY DEFINE PRI-
ORITIES AND DEMAND THAT THE LEGISLATIVE RESOURCE BE USED TO
SOLVE THE PRIORITY ISSUES BEFORE MOVING TO LESS CONTROVERSIAL
AND LESS POLITICALLY SENSITIVE SUBJECTS.

This will slow down the volume.

DEMAND THAT THE DEFINITIONS WRITTEN TO IMPLEMENT LAWS BE
CLEAR AND UNDERSTANDABLE AND THAT THE SOURCE AND ANTICIPATED
AMOUNT OF MONEY NEEDED TO ENFORCE OR CARRY OUT ANY LAWS INTENT
BE CLEARLY DEFINED. ALSO DEMAND THAT LOCAL OFFICIALS KNOW WHAT
THEY ARE DOING AND DEMONSTRATE THIS KNOWLEDGE BY SUPPLYING EF-
FICIENT GOVERNMENT.

Don't pay for more services than you need. If you think
something needs changing, influence your federal and state
legislators, county commissioners or town council to your think-
ing by providing strong and objective arguments. If they won't
be convinced get the issue on the next ballot.

CITIZENS MUST BECOME MORE ACTIVE AND INFORMED ABOUT LOCAL
GOVERNMENT BECAUSE LOCAL GOVERNMENT HAS FAR MORE POWER
THAN MOST PEOPLE REALIZE.

U.S. Forest Service

U.S. Army Corps of Engineers

Donneville Power Administration:

U. S. Forest Service Kootenai National Forest total yearly budget is stable and increases in direct relationship to the level of inflation. Service and contract cost from year to year more directly reflect inflationary trends than do salaries.

The total budget in general and "un-audited" terms for the Kootenai National Forest is;

F4 - 74

Total Budget	<u>5,324,442</u>
Salaries	3,039,160
Service and Supplies	2,285,282
Contracts	<u>802,302</u>
Lincoln Co. Contracts	290,102
Other Contracts	512,199

Generally speaking, therefore, the total money spent for forest operation in Lincoln County is \$4,131,564 or about 78% of the Budget.

Increases in money spent by the forest service in Lincoln County could happen if more local contracts were let.

U.S. Army Corps of Engineers - Libby Dam Bonneville Power Administration;

The Corps and Bonneville yearly budgets are not stable because the amount of money spent, not only relates to inflation,

but to the work level of the various contractors for Dam related work. This definition will, therefore, contain a budget projection for the time when the Dam is completed.

These figures too are general and un-audited and are for Fiscal year 1975;

Corps Budget	320,500,000	-	665 people
Local service and contracts	198,000		
Bonneville	3,380,000	-	100 people
Local service	0		0

Dam Power House Budget when total project is completed;

Corps	555,000	97.3% reduction	37 people	94.4% reduction
Bonneville	50,000	98.6% reduction	3 people	97% reduction

U.S. Corps Re-regulation Dam Budget Estimation:

Final plans for this dam construction are not yet available, however, a projection of a maximum year employment for this project is expected to be about 1000 men. The reported total budget for this project is \$167,990,000 with an annual budget of \$10,340,000. No attempt has been made to detail long range economic cost of environmental damage in the cost benefit ratios. No new major social upheavals are projected by the staff or by Dr. Mickle in his "Socio-Economic Effect study - Re-regulation Dam on Kootenai River near Libby, Montana", lessons from the past should be heeded however.

1. Local government should take a strong stand on "commitments" made by the "corps" regarding recreation potential. The new impact statements provided by the corp and the U.S. Forest Service should "guarantee" in contract form that the total dam facility will include recreational facilities to accomodate anticipated visitors.
2. Local government should "support" affected land owners that are being displaced by this facility. Private land taken by both projects should, in the staff's opinion, be replaced with "like" federally owned ground in Lincoln County, whether or not the displaced people wish to trade land. Areas around Libby - Fisher River drainage and the Tobacco Plains should be transferred to private use.
3. All negative impacts should be mitigated through contractual release between the governmental entities involved. Lost deer range is a good example. All options, local, state, and federal should be discussed and the plan that is finally approved be signed by all agencies only after extensive public hearings. These discussions should not be made as the result of unilateral action. (Intergovernmental Cooperation Act - 1968-1969).

Local Government - Budget:

County government is going to grow within the next several years. Increased service responsibilities in the areas of assessment practice, planning, and environmental health will require expanding technical staff.

F4 - 1974 budget \$1,700,000.00 represents a 30% increase from the previous year:

General	up	7%
Road	up	17%
Bridge	up	1000%
Poor	up	20%
Library	up	5%
Co. Agent	up	0%
Co. Rurr	up	20%
<u>Airport</u>	<u>up</u>	<u>16%</u>

most of the increases above are the direct result of inflation - the bridge budget is up because of the need to replace several bridges. Increase in the general fund can be anticipated for the next budget year. In a recent study on local government conducted by the staff of the Regional Planning Association of Western Montana, the per capita expenditures for county government was lower in Lincoln County than in 7 of the other 9 western counties, and much lower than counties of comparable size.

Jureka, Rexford and Troy's total budgets amount to approximately 100,000. Most of the budget (about 60%) is allocated for law enforcement.

Rexford does not collect any mills, their total budget is funded by water and sewerage charges.

General Comment:

Governmental spending in the form of salaries and contracts has amounted to about 40% of the total expendable income in Lincoln County.

The level of governmental involvement is expected to drop sharply by 1980 because the completion of the Libby Dam Project. By 1982, government should be below 15% of the employment and income.

The fact that the total number of people involved directly with government work was less than 20% of the total indicates that government pays much more than private enterprise. All of this over-paid governmental help - or contract labor can be attributed to federal employment and the Libby Dam project however since local governmental salaries are about 25% less than in the west coast states and about 1/2 less than other mountain states.

Protection Alternatives:

Discussion - Woods Work;

The timber business, as has been discussed, is getting more competitive because of increasing technology and the reduced availability of the raw materials. Opportunities for greater volume use of the tree are being sought. Even the "gyro" miller can buy equipment that reduces kerbs and saws down to a 3 inch top. Chips, sawdust and slabs are all being used. Innovative solution to the harvesting techniques are being studied in order to leave less of a scar on the landscape. Interesting work is being done in the U.S. Forest Service Research Center on chip board production and in many other areas of raw log production and product refinement.

What alternatives exist to improve the local wood's resource?

Increase Harvest

Decrease Harvest

	<u>pro</u>	<u>con</u>	<u>pro</u>	<u>con</u>
1)	more mills	less efficiency	less mills	less local service benefit
20	existing mills	less local service benefit	existing mills	less efficiency
3)	more profit	less trees	more trees	less profit
4)	more employment	more people	less employment	less people
5)	more big game feed	less cover	more game cover	less feed
6)	greater water run off	erosion damage	less erosion	less water
	more by products use secondary industry		less by products use secondary industry	

Increase - Decrease Harvest;

IF WE DEVELOP A METHOD FOR INCREASING THE HARVEST, THE AMOUNT OF THAT INCREASE WILL DETERMINE THE FEASIBILITY OF INCREASING THE NUMBER OF MILLS NEEDED FOR PROCESSING. IF THE SCALE OF HARVEST INCREASE REQUIRES ADDITIONAL CAPITAL INVESTMENT EQUAL TO ANOTHER MILL, THE LOCAL SUPPORT SERVICE ECONOMY WOULD BE STRENGTHENED.

IF THE HARVEST IS DECREASED THE SMALL MILLS IN THE NORTH-EAST COUNTY WILL BE HIT THE HARDEST SINCE A REDUCED RESOURCE BASE WOULD SHIFTLY CROSS THEIR COMPETITIVE POSITION. The cedar mills in and around Troy will remain stable as long as they don't overharvest the product.

Protection:

Increased "Big" business control of market and raw material due to better product knowledge and integrated nature of their operation.

Durlington Industries and the St. Regis Company are both huge international conglomerates. They both rank in the top 25 of the nations 500 leading companies. If there is going to be a problem with surviving in wood processing business in Lincoln County the two biggies will be the last to "go broke".

The only way that small mill operations can be guaranteed is by "subsidizing" the small mill owner through amended U.S.

Forest Service bidding techniques. A study of current Forest Service bidding procedure should be undertaken to define comprehensive economic impact. It will be found that if the emphasis on individual sale, short term government profit is to be used by the Forest Service as the main criteria for awarding bids, then the small operator will find it increasingly difficult to compete because of his larger operating margins. Existing or increased "high Forest Service take" stumpage costs can only lead to reducing the competitive position of the small business man in every line of business.

Mining:

Discussion and Projection;

A very stable industry. This industry will terminate operations when raw material is depleted.

The limited nature of the copper resource will preclude intermediate processing, thus limiting environmental concerns to excavation and transportation factors. The vermiculite resource appears to be long term. Expanded product research and development could result in intermediate industrial processors locating in Lincoln County.

Increased product demand coupled with reduced raw material supply will prolong mine life because an "inferior" raw material will become economical to process. Product recycling will also become profitable. Lincoln County will benefit from this

longer mine life but recycling will be most profitable close to the consumer markets. Additional minerals will be "discovered" within the next 16 years that will extend the mining industry at roughly the present level for the foreseeable future.

Farming Projections;

Farm - ranch operations will become a strong second to the timber based industry in the Eureka Census Dist. Increased farmer co-operation in production and marketing can stabilize the economics of the farm business and local goods and services.

Government Projections;

Will continue to disperse tax resource in an inefficient manner until uniform information and fiscal management systems are instituted. Direct public involvement is required before duplications in effort and service will be minimized at all levels of government.

Final Shot;

The biggest economic problem in the county is that the capital investment in the commercial areas are not matching the increases in the levels of expendable income. John Wicks indicates, in his study, that while construction earnings rose from 1 million dollars in 1965 to 20 million in 1971, the whole sale - retail and service trade earnings less than doubled in

the same time frame. The temporary nature of the Libby Dam project is certainly the major factor in limiting capital investment, however, even after the dam has been essentially constructed and work forces reduced the average family income in Lincoln County remains the highest in the state. Projections for an increase in construction for the re-regulation dam suggest fiscal stability on the 1980's at least.

Recreation:

Recreation has been inserted here because it is not an industry but a retail trade venture.

Recreational Use Income;

Of the 34 plus privately owned recreation areas in Lincoln County, only 28 or 29 are serious attempts to make money. These, close to thirty, establishments gross about \$200,000 per year or average less than \$8,000 apiece. This income pattern indicates a close similarity between recreation income and farm income. Most recreation and farm owners make their primary or secondary living at some other business or job. Some farm-ranchers own recreational areas and vice-versa.

If recreation is to become a significant income producer in Lincoln County, then great additions to the present levels capital investment must be forthcoming. The obvious place for

this investment is on the Moccasin Lake. If, for example, this great body of water can be established as a vacation terminus then the capital invested at and on the Lake will stimulate similar investment in existing and future commercial recreation throughout the county.

Caution must be offered here, however, because the recreation "industry" is not an industry in any stretch of the imagination. For example the direct income multiplier of the timber industry shows: land owner income, tree harvester income, primary - secondary mill income, wholesales - broker income, retail income or from 5 to 7 benefactors from the tree. All this plus secondary income to wholesale and retail suppliers all levels.

On the other hand recreation supplies primary income to the land owners and the recreational development owner usually is the same person. Secondary income accrues, but the seasonal nature of this "industry" does not encourage the establishment of local suppliers.

The U.S. government figures of 500,000 visitor days could mean, depending on the nature of the average visitor stay period, over a \$4,000,000 increase in local income. 500,000 people visiting one day (12 hours) apiece or 250,000 visiting two days or etc. the longer the stay the larger the individual daily investment in that stay. The longer the stay the larger

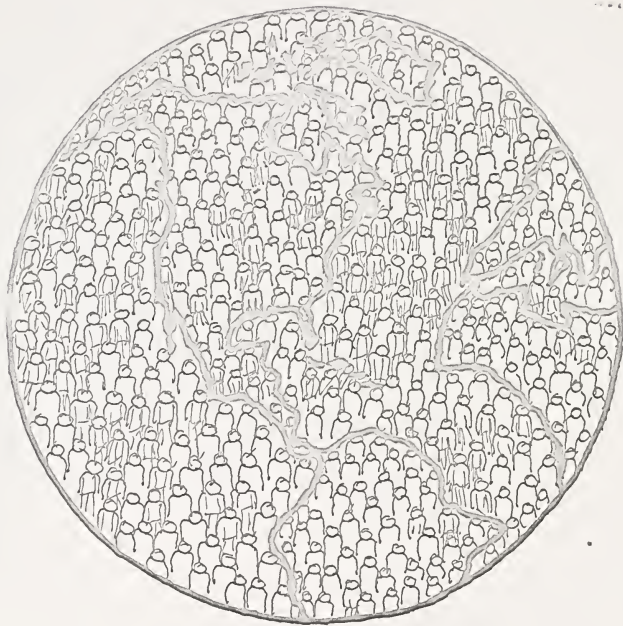
the investment in land area resources must be made to facilitate that stay. The definitive planning study on commercial recreation to be conducted next year will define the ratios of space to visitor and dollar to visitor according to duration of stay. Further next years study will attempt to develop a commitment by responsible agencies on their role in a program to increase or decrease the commercial recreation potential of Lincoln County.

Needs for "New Industry";

The mining of nonferrous metals and lumber and timber basic products are listed in "Stuart Chapins--Urban Land use Planning" as "highly sensitive" to the national economy. Industries and services such as: computer manufacture and use, food and kindred products, printing and publishing, recreation and high skill or craftsmen trades are some new business which should be encouraged to locate here.

The problem with locating these types of business is that we do not have a labor pool skilled in these areas. A program for retaining local workers and providing living systems for new people will be required if such business is to be encouraged to locate here.

LAND USE



DONISA MICALSON

LAND USE

Introduction and Goals:

The manner in which the land is used reflects the attitudes of the people. The attitudes of the people are, therefore, critical to the success or failure of any plan for the use of land. The text of this preliminary land use statement provides a glimpse of peoples attitudes toward land use planning and land use planners in Lincoln County. This plan also clearly states the planners attitude toward the manner in which the land is used. An interchange is, therefore, hereby initiated about attitudes.

"Attitude - position or bearing as indicating action, feeling, or mood".

---Websters New Collegiate Dictionary

The play on words suggests both confusion and cohesion. On the one hand the people, as a general rule, mistrust planners and planning because of the people's resistance to the implied control. On the other hand the planner, once sure in his opinion about the limits of "good" planning, becomes less firm in his position about the nature of the individuals responsibility for the common "good".

One thing remains "true";

A DEFINITION OF THE INDIVIDUALS ROLE IN SUPPORTING THE COMMUNITIES PURPOSE IS A DEFINITION OF ADEQUATE PLANNING.

Goals statements have been written in the past, and in

every part of the United States to "start" the planning process. The staff experiences in the field of goals writing requires the following statement.

Since 1954 millions of dollars have been mis-spent in the federally subsidized "701" planning program. Much of this mis-spending is due to the requirement by HUD that "goals" precede planning. This goals statement "pre-requirement" has lead to premature and superficial consultant and staff prompted "public goals" because of the planners misguided compulsion to provide "substance" in his work product.

Goals as in every other phase of planning forever, require thorough study before relevancy can be determined. The best way, in the staff's opinion, to attain relevant goals is to provide an information base from which alternative future community developments can be determined.

The attempt to provide a forum for goals determinations is offered in the following statements which beg the critical questions about land use.

Transportation:

Transportation exists to permit the social and economic activities of people. Transportation planning tries to provide a balanced system to serve the activities of people in the most efficient manner possible.

Since streets and highways are the major intra and inter county links, the functional definition of these thoroughfares is critical to the satisfactory maintenance and expansion of

needed roadways. Since travel involves movement along a network of roads, the purpose of each road or street within such a network, can be described through the use of a functional classification system. The guiding factors in determining the functional status of highways, roads, and streets are the percentage load of traffic that is found to be traveling between 1) major population nodes, 2) economic centers, 3) through and around urban areas, 4) on farm to market roads, or 5) to recreation centers.

Each county and the State of Montana Department of Highways cooperate to develop a system of roads and to determine the individual governmental entities responsibility for a given part of the total system. The degree to which an individual road provides land parcel access is the scale on which responsibility levels are determined. For example streets and roads which serve primarily to provide direct access to land parcels are provided and maintained by local government. Highways and thoroughways that provide mobility between towns, counties and states are the responsibility of the state and federal governments. Planners are not so much interested in the amount of traffic that a particular road carries but the "purpose" for which most of the travel is motivated. The corridor patterns map details current and projected county - state

priorities. The individual town maps for Eureka and Renford show intra town circulation systems. Standards for construction are found in the Subdivision Ordinance..

Air:

There are three county owned and operated airports, shown on the map, that provide facilities for private air travel. These airports have no scheduled or non-scheduled commercial air service. The facilities are deemed adequate by the State Division of Aeronautics and the Federal Aviation Administration. Use statistics indicate that these facilities are now adequate and that no major expansion will be required until after 1985.

Water:

A summer - international system for transportation people and goods using the Koccanusa reservoir is possible. Extensive use of this water resource is not anticipated for either transportation or pleasure, however, until the problems of floating debris are reduced. After the water has reached maximum pool area about four times, the use of this water resource will increase. Commercial use will not occur until after 1985 and not until a rail head is established for transshipment. Timber, and coal are commodities that could be transported on the Koccanusa.

Utilities:

Water and Sewer Systems;

A document entitled "Water and Sewer Plan 1970 State of Montana - Volume I", published for the State Department of Planning and Economic Development (now IDH) contains a description of all water and sewerage systems and resources in Lincoln County Montana. Other details about water availability and water quality management have been published by the State Department of Health and Environmental Sciences and the Department of Natural Resources.

The format established in the State of Montana - Volume I plan will be used here for clarity and so that record keeping can be coordinated with possible future State of Montana systems for updating the material contained therein.

This brief plan update is intended to revise information provided in the "water and sewer plan maintenance system".

GENERAL UPDATE COMMUNITY WATER SYSTEM FACILITIES

LINCOLN COUNTY

Existing Systems:

The "Comprehensive area-wide Water and Sewer Plan-1970" State of Montana - Volume I continues to describe the status of existing systems except for the town of Duraka which has installed the systems improvements that were defined in that document. "Specifications for Water System Improvements for Duraka,

Montana, project number 1152-01-02 by Morrison and Maierle, Inc. completely defines the new system. Rexford, Montana was completely left out of the 1970 study, therefore, the staff has written a section for Rexford. Since the City of Libby has a completed General Plan which contains data on updated systems no reference will be made concerning the systems within the Libby - Lincoln City - County Planning Board's jurisdiction.

COMMUNITY WATER SYSTEM FACILITIES

REXFORD

Existing System:

New Rexford has a population of 106 persons. The Rexford population has decreased about 200 people from the resident population of the old town site. The development of the Rexford Bench Recreation area on Lake Kootenai will be the primary detriment of population growth in the immediate future. Economic stability in the short term also depends upon the Bench development for support. The St. Regis Lumber Company and the U.S. Forest Service are presently offering the major employment opportunity to the Town of Rexford.

Grob Lake Well no. 1 constitutes the water supply source for the town. The well is located 2 1/2 miles north west of the town site and supplies water at the rate of 80 gallons per minute to a 150,000 gal storage tank located just east of town. Although the existing system is new, having just been installed

by the U.S. Corps of Engineers (see "Water Supply and Distribution System - New Rexford, Montana - Operation and Maintenance Manual October 1972) the town has already experienced a period of critical draw down during late July 1973. Sprinkling lawns and gardens has required that a time limit be put on hours for sprinkling. Any increase in population will begin to test the capability of the existing system to provide a normal water use capability to the citizens of Rexford.

Improvements Next Five to Ten Years:

Increased pumping capacity from the existing well and the creation of another water source is recommended to meet doubling of the existing population.. For Rexford to remain economically viable the population must at least double in this time frame. Thirty to forty families must move within the corporate limits in order that the full range of town services be maintained.

Cost Estimates;

New well - 100 gallon per minute capacity	\$8,000
Excavating	\$6,000
Engineering	\$000
Contingency	\$1,000
Total	\$15,800
New Pump - 100 gallon per minute capacity	\$6,000
Grand Total	\$21,800

The location of a new well will determine the cost of any new pipe requirement.

Improvements by 1990:

The staff does not believe that projections into this time frame are useful. Historical growth patterns tend to become counter-productive as projection tools past the ten year period because of the rapid change in technology.

GENERAL UPDATE COMMUNITY SLUDGE FACILITIES

Existing Systems:

Dureka is defined in the statewide plan.

Improvements Next Five to Ten Years:

The Town of Dureka's secondary systems requirements will be in effect by July 1974. An increase of the present BOD treatment from 30% to 95% to 100% will be required. Several options exist for the required increase in treatment capacity. Alternatives range from high speed trickling filters to oxidation ponds and from extending an interceptor main to the Remford plant to exploring new technology in the area of individual home unit treatment.

The alternatives offered here will include; high volume treatment capacity to space used ratio systems, low volume treatment capacity to space used ratio systems and the trunk line to the Town of Remford's treatment facility.

Cost Estimates

Land	15,000
Lagoon Aeration	54,000
Inverted Siphon	5,000
Contingency - Engineering	15,000
Total	89,000
Secondary - high volume to space used capacity	150,000
Contingency - Engineering	30,000
Total	180,000
Eureka - Remford Connection	264,000
Contingency - Engineering	50,000
Total	314,000

COMMUNITY SEWER SYSTEM FACILITIES

REMFORD

Existing Systems:

The recently completed sewage treatment facility provides a satisfactory treatment capability to service 1,500 to 2,000 persons plus handle the anticipated recreation area on Remford Beach during the peak period of tourism. Note: Complete system descriptions have not yet been completed by the Corps and the consultant engineering firm. These systems analysis will become part of the bibliography for this study when completed.

Improvements Next Five to Ten Years:

The design life of the system is 50 years and there seems to be no reason for the expansion of the collection or treatment facilities with the next ten years. Fees are presently being developed to pay for maintenance and equipment replacement.

The possible connection of the Eureka system to the Rexford Sewage treatment facility has been costed in the Eureka section.

WATER QUALITY MANAGEMENT OBJECTIVES, DESIGN CONSIDERATIONS, AND COST ESTIMATING BASIS

The purposes of this section are: (1) to develop basic parameters for determining water and sewerage system expansion requirements, (2) to present design criteria and define basis for sizing major elements of the various systems, and (3) to set forth the capital cost estimating basis.

Water quality management objectives and projected wastewater discharge requirements are generally discussed to provide a basis for establishing the necessary level of performance of future systems.

It is anticipated that this report will be instrumental in establishing the basis for preparation of final engineering designs must conform to the requirements of certain control agencies, the design parameters presented herein were determined to be in reasonable conformity with design constraints which may be imposed by these control agencies.

Water Quality Management Goals:

The recently proposed "Water Quality Standards" offered by the State of Montana Department of Health and Environmental Sciences describes goals and procedures for implementing a "State Plan" for water quality. The planning processes that will be in effect for the state's water quality Management Program contains strategy for a continuous planning effort for water pollution control and maintenance and protection of state waters.

Projected Wastewater Discharge Requirements:

In the past decade the discharge requirements set forth by the State Department of Health and Environmental Sciences have undergone tremendous changes toward more stringent limits and more determined application. This has been a reflection of accelerated public awareness and concern about water pollution and its effects upon the environment. It is natural to expect further refinements in quality criteria for effluent discharge, plant design, construction, and operation, etc., in coming years. Such refinements will be particularly influenced by advancements in waste water treatment technology. These advances are expected to come about as research and development assumes a greater role in this field.

It may be fairly expected that future requirements will place a greater emphasis on total dissolved solids such as salts.

an increased demand for fresh water will certainly exert a greater impetus for lower salt content in groundwater particularly.

Water Supply System Objectives:

The drinking water standards for potable water supplies as developed by the United States Public Health Service may be expected to prevail as the minimum acceptable level of water quality for domestic purposes. However, the water quality required for certain industrial uses would suggest the evaluation of quality demands on an individual basis for these industries.

In order to insure the continued provision of acceptable domestic water, the State Department of Health and Environmental Sciences and the Lincoln County Health Department have established local water supply and quality objectives. These objectives should be supported with enthusiasm and constructive input.

Water Supply System Design Considerations:

Generally speaking, water supply wells or elevated storage reservoirs should be distributed uniformly throughout a system and located in the areas of greatest water demand. The production capacity of any proposed wells may normally be expected to equal the capacity of existing wells in the same community, assuming that the existing wells have been producing to the fullest of their potential.

A very important consideration in the design of water supply systems is the maintaining of service during periods of power outage. A system should not be expected to supply maximum demands during this period, but should be required to supply at least the average day demand. Most power outages in Lincoln County can be rectified within a four hour period, however, if a fire were to occur during this time, most of the supply available from existing elevated storage would be depleted within one hour. The system, then, could not serve the domestic or fire flow needs. A comparative cost analysis indicates that it is more economical to provide standby power generating equipment on existing water supply sources than it is to provide additional elevated storage.

Factors which should be considered in selecting a new well site or an existing site on which standby power is to be provided are as follows: (1) The capacity of the well, (2) the cost of the generating unit, and (3) the probability of noise problems.

Wastewater Facilities Design Considerations:

Design Flow Basis and Pipeline Sizing Parameters. In order to evaluate the capacity of existing trunk systems and to provide a logical basis for determining the required piping sizes of proposed systems, peak flows must be considered. Figure I

was prepared to show the relationship between tributary population and probable peak flow factor. The reciprocal relationship shown is based upon studies dealing with systems for communities of the populations included in the Planning area. Interceptors and trunk sewers were sized according to the general parameters presented in Table - I.

PIPELINE SIZING PARAMETERS

TABLE * I

Population Equivalent	Peak Factor (1)	Peak Flow Per Acre (2) gpm	Pipe Size (inch)	Pipe Capacity (3) gpm	Service Area (acres)
800	3.1	3.23	6	174	54
1,600	2.8	2.92	8	312	107
2,700	2.6	2.71	10	486	179
4,200	2.4	2.50	12	702	281
7,200	2.2	2.29	15	1,097	479
11,400	2.0	2.08	18	1,583	761

(1) From Figure - I

(2) Based on average flow of 100 gpd and development of 15 persons per acre.

(3) Based on full flow at minimum slope to maintain velocity of 2.0 feet per second as determined by Manning's equations with $n = 0.013$.

Table - I provides a correlation between population, pipe size, and service area based on a uniform density of development of 15 persons per acre. Because of the variable nature of the assumed conditions, the pipeline sizing basis presented in

Table - I should be employed with a degree of good engineering judgment.

Design Criteria for Pump Stations and Force Mains. Pumping stations should normally be constructed with at least two pumping units, each capable of handling flows somewhat in excess of the expected maximum flow. Where three or more pumps are necessary, a selection is made of pumping units having a total capacity such that with any one pump out of service the remaining units will have the necessary capacity to handle maximum flows. Due to the likelihood of power failures, standby generators should be considered in all cases.

Where necessary, pumping stations should include air compressor units which could inject air into the discharge piping in order to minimize the production of sulfides within the force mains.

From the aesthetic point of view, sites for the pumping stations should be chosen which result in minimal effects upon the neighboring area. Where desirable, consideration should be chosen which result in minimal effects upon the neighboring area. Where desirable, consideration should be given to the use of underground installations.

Force mains from pumping stations should be sized to minimize pumping and maintenance costs. Velocities in force mains normally vary from a minimum of 2 feet per second (to control

deposition and sulfide generation) to maximum of 7 fps (to avoid corrosion and excessive energy losses) for the range of flows anticipated.

Wastewater Treatment Facilities. Wastewater treatment facilities have been recommended which are expected to conform to the established discharge requirements and which afford maximum potential for reclamation. If future discharge requirements place a greater emphasis on total dissolved salts, it is possible that more sophisticated methods of treatment may be required. Never-the-less, the treatment methods considered in this study may be described as follows.

1. Stabilization pond treatment - processing in a type of oxidation pond in which biological oxidation of organic matter is effected by natural or artificially accelerated transfer of oxygen to the water from the air.
2. Primary treatment - A treatment process designed to remove from the sewage a high percentage of suspended matter but little or no colloidal and dissolved matter.
3. Secondary treatment - the treatment of wastewater by biological methods after primary treatment by sedimentation. To some extent secondary treatment is achieved in oxidation and facultative ponds; however, for purposes of this study, secondary treatment shall

be considered to imply one or the other of the following:

- a. Biological filtration treatment - the process of passing a liquid through the medium of a biological filter thus permitting contact with attached zoological films that absorb fine suspended, colloidal, and dissolved solids and release and products of biochemical actions.
- b. Activated sludge treatment - A biological wastewater treatment process in which a mixture of wastewater and activated sludge is agitated and aerated. The activated sludge is subsequently separated from the treated wastewater by sedimentation and wasted or returned to the process as needed.

Capital Cost Estimating Basis:

The capital cost of any project represents the total expenditure which must be made to construct the project including the cost of land acquisition, construction costs, engineering services, legal fees, and contingencies.

Construction Cost Indices - Construction costs have been rising in the United States for many years and it is anticipated that this trend will continue approximately as indicated by the pro-ENR (Engineering News Record) Construction Cost Index shown on Figure - 2. All cost estimates presented in this

report were estimateed on the basis of 1972 prices corresponding to an ENR Index of 1500. Therefore, estimates for all projects to be constructed in the future should be adjusted to reflect the actual funding required.

Unit Construction Costs - Estimated unit construction costs are presented in Figures - 3 and Figure - 7 for the various project elements considered in the recommended systems. Although these cost data were based upon independent evaluations of construction costs experienced in the planning area, they compare favorably with unit costs presented in similar reports.

Cost of Land Acquisition - Construction of trunk sewers and major water distribution system improvements will generally not require significant purchases of privately owned land. Pipeline routes should be aligned where practicable to follow public streets and roads. For this reason, no attempt was made to estimate the cost of land purchases in connection with pipeline construction.

Land requirements for wastewater treatment and disposal facilities and for water supply wells, however, are more considerable. Land required for treatment and disposal facilities was estimated at \$500 per acre and land required for water supply wells at \$1,500 per acre.

Engineering Costs and Related Expenses - Engineering com-

pensation drawings, specifications, and related documents has been applied as a percentage of total construction cost, and varies with the volume of construction in a reciprocal relationship. The percentages used for the facilities included herein are in the range of 7 to 12 percent of construction costs and are commensurate with those most commonly used and outlined in the American Society of Civil Engineers Manual no. 45 (Reference herein). A cost allowance for contingencies to cover all unpredictable items of construction has similarly been added as a percentage of construction costs and is included at 10 percent.

Legal and administrative expenses usually fall between two and three percent, and the cost of financial advice, printing of bonds, discount of bonds, etc., between one and five percent of the construction cost has been used.

The estimated costs for engineering and contingencies, legal administrative, and financial expenses will thus vary between 22 and 27 percent of construction costs; in all the cost estimates shown 25 percent has been included.

Electric Utilities;

Lincoln County and the towns of Eureka, Libby, Troy and Rexford are divided by 3 utilities companies, two of the companies are public co-ops and one is a corporation private system. Lincoln Electric Coop services the Eureka Tobacco

valley area. Pacific Power and Light services the greater Libby area, Northern Light Company services the rural Troy and Yaak districts and the St. Regis Company services the town of Troy with electric power. All systems boundaries are shown on the corridor patterns map.

Pacific Power and Light's policy on extending service follows.

PACIFIC POWER & LIGHT COMPANY
GENERAL RULES AND REGULATIONS

26. LINE EXTENSIONS:

- A. Applicable: This rule is applicable to all prospective permanent customers located within the Company's service area providing the proposed line extension can be built from an existing distribution line of 12.4 kv or less. This Rule is not applicable to temporary service.
- B. Definitions: An extension is herein defined as any branch from, or a continuation of, an existing Company-owned overhead distribution line other than a service drop. Extensions from customer-owned lines will require special arrangements. An extension may be for either single or three phase service or may consist of the conversion of an existing single phase line to three phase with or without further extension of the three phase line.

The cost of an extension, as used herein, shall be the total construction cost of the extension, including meters, transformers and reasonable overhead charges, plus the cost of any addition to or rearrangement of present facilities necessary to serve the extension.

Revenue shall be the estimated or contracted annual income, which Company expects to receive from customers to be served by the extension, calculated according to the terms stated in Section I of this Rule.

- C. Contracts: Company shall not be required to build an extension

beyond the Free Extension limit until the customer or customers have signed an acceptable contract guaranteeing payment of a minimum monthly charge for a period of not less than 60 months together with any Prepaid Revenue required under this Rule. In case the premises to be served is occupied by a tenant, Company may require the property owner to sign the contract. Payment of the contracted monthly minimum charge shall start 30 days after the completion of the extension, unless a later date is mutually agreed upon.

D. Overhead Extension:

(1) Free Extension: Company will construct without cost to the customer, or customers, an extension when the cost of such extension is not more than twelve times the estimated annual revenue to be derived therefrom as provided in Section I of this Rule.

(2) Prepaid Revenue for Extensions Beyond Free Extension Limit: For extensions which cost more than can be built under Section D (1) of this Rule the customer shall, except as hereinafter provided, make a cash payment of Prepaid Revenue equal to the amount in which the cost of the extension exceeds the amount of Free Extension calculated according to Section D (1) of this Rule.

When the actual cost of an extension is less than the estimated cost, adjustment shall be made in customer's Prepaid revenue payment by recomputing such payment on the basis of actual cost, provided that the customer has installed the equipment for which service was contracted. If the actual cost is greater than the estimated cost, no additional payments are assessed to the customer.

= Company may install, without payment of Prepaid Revenue all or any part of the facilities in excess of the Free Extension when in its opinion such facilities are justified by additional future load to be served, or where such excess facilities will be used for general system improvement. Customer may perform certain work in lieu of part or all of cash payment where such work is acceptable to Company.

E. Underground Extension: Underground line extensions, in lieu of overhead extensions, will be made only where mutually agreed upon by Company and customer. Such agreement shall provide for the reimbursement as Prepaid Revenue by customer to company, of the excess cost to Company of the underground

extension over the estimated cost of equivalent overhead extension. The customer shall also advance any Prepaid Revenue payments which may be required in accordance with Section D (2) of this Rule. All other provisions of this Rule shall also apply to underground extensions.

- F. Routes, Basements & Rights-of-way: The route of an extension shall be selected by Company and the prospective customer shall, when necessary, provide, without cost to Company, rights-of-way or easements satisfactory to Company for the construction, operation, and maintenance of the extension. Customer shall permit company to trim, clear, or remove trees on or over customer's property.

- G. Permanent Seasonal Service: Extensions to serve permanent customers desiring seasonal service (such as camps, summer homes, etc.) will be made in accordance with all the provisions of this Rule except that the annual minimum charge shall not be less than the sum of the twelve monthly minimum charges applicable to a non-seasonal customer, which sum the customer will contract to pay for not less than five years beginning 30 days after the date service is first made available.

Customer will be billed for electric service in accordance with the provisions of the appropriate rate schedule or contract. Customer will also be billed at the end of each season for the deficiency, if any, between the total of the bills rendered for electric service during each season and the contracted annual seasonal minimum charge. The above shall apply, except where seasonal rates are in effect in which case the higher of either the rate schedule or the contract minimums will apply.

- H. Extension Limits: In no event shall the Company be required to construct, under the provisions of this Rule, any extension which, in its opinion, is not capable of further revenue development, or which requires special considerations because of unusual construction requirements, lack of reasonable assurance to the permanent continuation of required revenue, or any other unusual conditions.

- I. Method of Estimating Revenue: The estimated annual revenue shall be computed by applying the appropriate schedule to the monthly kWh (and kW if a factor in the schedule) of estimated average monthly use which the Company can reasonably

expect the prospective customer to develop within the initial five-year period of the extension and multiplying the result by twelve.

For summer homes and other seasonal service the annual revenue will be the monthly average use amount multiplied by the number of months in the season but in no event less than the sum of twelve monthly minimum charges applicable to a non-seasonal customer.

- J. Additional Customers: Each new customer connected to an existing extension or to a continuation or to a branch thereof on which the initial five-year period has not expired for the customers who contributed Prepaid Revenue to such extension, shall share in the Prepaid Revenue payment of the existing extension by making a Prepaid Revenue payment or other arrangements which maintain substantial equity between such existing customers and the new customer.
- K. Refunds of Prepaid Revenue: Refunds of Prepaid Revenue will be made to existing customers or their legal assigns (a) when the actual cost of an extension is less than the estimated cost as provided in Section D (2) of this Rule; (b) when a new customer shares in the Prepaid Revenue payment of an existing extension as provided in Section J of this Rule; (c) when temporary customers are connected in accordance with Rule 2 (e) hereof to an extension on which the initial five-year period has not expired. The total amount of such refunds shall not exceed the original payment and all refunds shall give consideration to time remaining in the five-year period beginning with the date of initial service, the revenue received or estimated for service and such other factors as may provide for equitable adjustment to customers who made Prepaid Revenue payment.
- L. Restrictions: Notwithstanding the provisions of this Rule, the extension of Company's lines and service shall be subject to such restrictions as may be imposed from time to time, during war or other emergencies, by the laws of the United States, by executive and administrative proclamations, and by orders or regulations of the Montana Public Service Commission.

Issued July 16, 1964

Effective September 23, 1964

Issued by PACIFIC POWER & LIGHT COMPANY
C.P. Davenport, Manager of Rates
Public Service Building, Portland, Oregon

Review of all other electric utility policies parallell the Pacific Power and Light statement.

General telephone and Interbel (subsidiary of Lincoln Electric) provide telephone service to Lincoln county. Interbel is expanding private line service to all of their users. General Telephone has limited service in rural areas. For example the town of Rexford is serviced by General Telephone with a 5 party line system. The Corridor map shows the extent of each companies service.

Public Facilities:

As defined in the "First Six Months" capitol improvement plan the following list of improvements are required to existing public facilities;

County -

1. The road crew shop and Commissioners office in Dist. 3 are becoming inadequate in size and available support facilities. Further there exists a conflict with town of Eureka business and circulation system - recommended sale of existing facility and move to support property estimated cost -- \$60,000.
2. The court house needs to be completely remodeled and expanded to meeting technical and personnel needs. This remodeling could include a new jail facility. Estimated cost -- \$600,000.

Town of Eureka -

1. New sewage treatment facilities to provide secondary capacity estimated cost -- \$300,000 (consultant estimate).
2. Improvement to downtown by providing additional parking and tourist rest facilities: estimated cost -- \$10,000.
3. Town hall improvements, new roof -- \$3,000.

Town of Rexford;

1. Need expanded recreation and park facilities to include improvement of Ponderosa Park tennis courts and skating rink estimated cost -- \$14,000.
2. Need new fire truck and pumper estimated cost -- \$40,000.

Schools;

Consultation with school officials and study of available enrollment statistics are as follows:

<u>Name of School</u>		<u>4 year enrollment reduction or in- crease in percent</u>	<u>School Facility Condition</u>
Troy	-	12%	high school needs remodeling
Tooley Lake	-	37%	Ok
Rexford	-	47%	New
Eureka	-	14%	New/HS Ok
Fortine	-	10%	Ok
Central	-	11%	Ok
Sylvanite	+	30%	expansion - need winter inside sports area
Yaak	-	12%	Ok
Trego	-	.01%	New

Statistics show that the national trend for lower birth rates is apparent in Lincoln County. Only 2% of the 9 elementary schools have had an increase in the first grade enrollment. Seven schools have a declining first year attendance. The total

numbers of students enrolled has fallen in the last four years in all schools except one. Lower total attendance in the upper grades mean a family out migration.

Based upon this information we can conclude that the present school facilities are adequate to meet the needs of Lincoln County for the next 5 years even though the total population increases slightly.

The Troy High School needs some remodeling, and the Sylvanite school will need to be expanded if the present increased enrollment trends continue.

Land Use - Physical Characteristics and Trends:

The enclosed maps and text have been amended for use by the LCUPB from maps provided for planning by the Western Montana Regional Planning Association. The landscape unit map has been amended to indicate recent land use trends and existing land use. Specific land use is shown on the Eureka and Rexford maps.

The attached geology map and the soils maps indicate general features of the land scape and soil which limit use. The following text explains the nature of the land features and provides a matrix that defines land use suitability. Specific soils analysis has been completed for some areas of the county and this information is available through the unit conservation-
alist at the U.S. Soil Conservation Service office. Changing the use of land requires that the information provide in this study be used to guide precise development plans. All development plans should include clearance with the county sanitarian and study of soils limitations. Assistance in soils analysis is provided by the U.S. Soil Conservation service in cooperation with the local Soil Conservation District.

Geological Descriptions and Map Key:

The geology map overlays were prepared by combining existing studies of specific areas or formations and filling in areas lacking detailed information with an existing geologic map of

the State (scale - 1:500,000).

The following map key provides unit by unit descriptions including general characteristics of age, engineering qualities, physical appearance, hazards, and availability of water.

This information should not be used as a substitute for on-site investigation.

UNIT DESCRIPTION

Qal - Alluvium - includes alluvium, colluvium, some terrace deposits, slope wash, flood plain deposits, alluvial fans

GENERAL CHARACTERISTICS

1. Age: Quaternary.
2. Heterogeneous unconsolidated sediments ranging in grain size from clay to coarse gravel.
3. Deposits composed mainly of clay, silt, sand, gravel and pebbles of various lithologies.
4. Usually well sorted and stratified. Attitude of stratification is usually horizontal.
5. Easily eroded.
6. Permeability and porosity very greatly from excellent to poor depending on amount of clay and silt present.
7. Generally forms shallow aquifers with relatively limited volume of ground water.
8. Qal deposits blanket mainly the flat valley bottoms and form relatively thin veneers over the valley floor. For these two reasons Qal deposits are especially susceptible to pollution.
9. Flooding hazards also exist in areas of this unit

adjacent to river channels which are covered with water when river overflows its banks at flood stages.

UNIT DESCRIPTION

Qg - Glacial Depostis (undifferentiated)

GENERAL CHARACTERISTICS

1. Age: Pleistocene.
2. Heterogeneous, unconsolidated sediments ranging in grain size from clay to boulders.
3. Deposits composed mainly of silt, and gravel, and cobbles with minor amounts of clay and boulders of various lithologies.
4. Sediments may occur as well-sorted to non-sorted, or stratified to non-stratified sediments.
5. Have high permeability and porosity (good aquifers).
6. Where exposed on surface, are potential aquifer recharge areas.
7. Perched water common in these depostis.
8. Highly susceptible to erosion.
9. Deposits may form low, rounded hills, hummocky topography, knob and kettle topography.
10. Susceptible to sliding, slumping and creep where found on moderately steep slopes.
11. Produces predominantly rocky soils

EXCEPTIONS

1. Qg deposits in Deer lodge Valley are of relatively low permeability and would probably yield only small amounts of ground water.

GENERAL CHARACTERISTICS

1. Age: Pleistocene.
2. Heterogeneous unconsolidated sediments ranging in grain size from very fine silt clay to boulders.
2. Deposits composed mainly of silt and sand, and of gravel pebble, cobble and boulder sized rocks of varying lithologies.
4. Qgm deposits occur as nonsorted, nonstratified sediments
5. Have extremely high permeability and porosity, but are not important to ground water sources because of small area extent. (see exceptions)
6. Nonresistant to erosion. Unstable on any type of slope, particularly if not covered by vegetation.
7. Produce predominately rocky soils.

EXCEPTIONS

1. The valley of the North Fork of the Flathead River is covered by a substantial amount of ground moraine material which may be an important source for ground water.
2. Morainal deposits on the east flank of the Flint Creek Range (Powell & Deerlodge Counties) exhibit relatively low permeability, hence, small yields of ground water to wells.

UNIT DESCRIPTION

Qgl - Glaciolacustrine deposits, silt and clay

GENERAL CHARACTERISTICS

1. Age: Tertiary to Pleistocene.
2. Unconsolidated to semiconsolidated, stratified sediments. Relatively homogeneous. Are generally pale pink or buff in color and are characterized by their horizontal attitude and by alternating dark and light laminae, commonly 3mm or less in thickness, known as varves.
3. Composed of clay and silt sized detritus.

4. Susceptible to slides, slumping and creep where found on moderately steep to steep slopes.
5. Low permeability and low porosity, extremely poor ground water aquifer.
6. Low resistance to erosion.
7. Forms low, rolling, rounded hills. May be highly gullied resulting in a close spaced (fine textured) drainage pattern because of high runoff from impermeable sediments.

UNIT DESCRIPTION

is - Carbonate rocks, to include limestone, dolomite and marble

GENERAL CHARACTERISTICS

1. Age: Precambrian, Paleozoic.
2. Heterogeneous to homogeneous, consolidated rock. Generally fine to medium grained. Well stratified, massive bedding common.
3. Three types of limestone:
 - A. Precambrian limestone - common throughout region. Generally is an impure limestone (intermixed with other lithologies). Contains argillite, arenaceous and argillaceous limestone, dolomite, some quartzite. Commonly laminated or thin bedded, but does occur in thick to massive bedding. Thin cracks and ripple marks also common.
 - B. Paleozoic limestone - Confined primarily to eastern margin of the region and to Granite, Powell and Deer Lodge Counties. Generally occurs as pure limestone or dolomite or a mixture of both. Bedding ranges from thin to thick to massive. Commonly fossiliferous. Dolomite, which is a magnesium limestone, is quite common in the Paleozoic rocks.
 - C. Marble is a contact metamorphic rock or limestone. Generally is white in color. May occur as an alteration product of limestone, or dolomite next to igneous intrusions. Usually, occurrences are small in volume and extent.

4. Colors of both limestones range in various shades of gray . The Precambrian limestones may have other colors such as red, green and tan because of different lithologies within them.
5. Highly resistant to erosion and landslides. Susceptible to mechanical weathering which causes talus slopes.
6. Low permeability and porosity. Expect low yields of ground water. Water moves through secondary openings such as joints and fractures and not through the rock itself. These joints and fractures have a small storage capacity unit may be depleted rapidly.
7. Soluble in water; forms sink holes, caves, karst topography. Has interior drainage. This description is more applicable for the Paleozoic rocks than for the Precambrian rocks.
8. Unit forms mountains, hills, ridges and cliffs, (Mississippian Limestones are particularly good cliff formers.)
9. Generally stable material for any type of construction or building.

UNIT DESCRIPTION

a - Argillite, interbedded argillite and quartzite, quartzitic argillite, argillaceous quartzite.

GENERAL CHARACTERISTICS

1. Age: Precambrian (unit belongs entirely to Belt Super group).
2. Consolidated, heterogeneous clastic rocks. Generally very fine to fine grained (clay and silt sized particles). Well stratified.
3. Structural features that characterize this type of rock are ripple marks, mud cracks, salt-crystal casts, scour and fill channels, graded bedding, cross bedding in the more quartzitic types, mud-chip breccia (flat pebble conglomerates), raindrop impressions and wavy laminations varying in color resulting from differences in particle size or composition or both.

4. Colors are numerous. This unit occurs in various hues of gray, brown, white, yellow, red, purple and green.
5. Tends to form blocky fracture patterns.
6. Highly resistant to erosion and landslides, Susceptible to mechanical weathering which causes talus slopes.
7. Has low permeability and porosity. Expect low yields of ground water. Water moves through secondary openings such as joints and fractures and not through the rock itself. These joints and fractures have a small storage capacity and serve mainly as conduits. Therefore, water in this unit may be depleted rapidly.
8. Connate water is also common in this rock unit. Depending on size of reservoir, yields only a fixed, limited supply of ground water.
9. Forms mountains, rolling hills, cliffs, ridges.
10. Most plentiful unit in region.
11. Generally stable material for any type of construction or building as long as either one does not undercut the dip slope.

UNIT DESCRIPTIONS

ssq - interbedded sandstone, quartzite and argillite

GENERAL CHARACTERISTICS

1. Age: Precambrian.
2. Unit occurs primarily as the Pritchard Formation in Lincoln and Sanders Counties and the Kintla Formation in northern Flathead County.

A. Kintla Formation - Beds in lower part of formation consist of greenish gray, coarse grained micaceous argillite and fine grained feldspathic sandstone and quartzite. Upper part of formation consists of greenish gray, pale red, yellowish gray, laminated argillite.

1. This formation exhibits flaggy weathering (breaks up into rectangular or angular slabs 10 to 100 mm thick) and produces extensive talus slopes.

2. Contains numerous salt-crystal casts.

B. Pritchard Formation - Lowest strata consist of gray - brown sericitic quartzite and gray - brown sandstone. Locally schistose. Upper strata consist of gray and blue - gray argillite. Weathers to rusty brown.

3. Structures such as ripple marks, mudcracks, cross bedding, and mudchip breccia are common to both formations.
4. Heterogeneous consolidated classic sediments. Well stratified.
5. Expect both formations to be poor sources of ground water because of low permeability and porosity. May yield some ground water from fractures and joints. Connate water may be present.
6. Generally stable material for any type of building or construction as long as the dip slope is not undercut.

UNIT DESCRIPTION

Igi - Plutonic (intrusive) igneous rocks, to include batholiths, stocks, dikes and sills

GENERAL CHARACTERISTICS

1. Age: Predominately Precambrian, Cretaceous, Tertiary.
2. Rock types named below indicate composition rather than lithology. It should be noted that igneous intrusive rocks occur in a great variety of compositions. To describe each composition would be useless, especially since they are mapped as one unit; they can, however, be broken down into two very generalized units:

A. Stocks and batholiths: (generally found on the map as the large, red, somewhat circular areas). Compositions are usually granitic (granite) in nature. Three of the most common rocks are quartz monzonite, granodiorite and granite. All of the red in Ravalli represents the Idaho Batholith and related bodies.

B. Sills and Dikes: (generally found on the map as

the red, small, narrow, elongated areas). General compositions range from ultrabasic, to basic, to gabbroic. Common rocks found in region are diorities, dacites, diabase and asbros.

3. Consolidated, generally homogeneous rock. Textures are usually medium to coarse grained and porphyritic. Stratification and fracture patterns (both are characteristic of sedimentary rocks) are absent. Bedding is massive. Joint patterns may be present, particularly in granitic bodies.
4. For reasons stated in number 3, expect very low permeability but not necessarily a low porosity. Igneous intrusive bodies are generally poor sources of ground water. In stocks and batholiths, however, ground water may circulate in appreciable quantities through interconnected joints and fissures. Dikes and sills are usually too small in areal extent and mass to be of any importance, but would have the same ground water properties as batholiths and stocks.
5. Erosional and topographic considerations:
 - A. Batholiths and stocks: Highly resistant to erosion in areas of low precipitation, non-resistant to erosion in areas of low precipitation, or semi-arid to arid climates. Forms mountains ranging in form from rounded to very rugged. Also may form rolling hills of subdued relief. Cliff former. Areas of domal intrusion may produce radial drainage patterns. Homogeneous nature of plutons may produce a dendritic drainage pattern and a uniform vegetation pattern.
 - B. Sills & dikes: Generally too small in areal extent and mass to make any major contribution to topographic features. Erosion varies from non-resistant to resistant. Where dike or sill material is more resistant to erosion than that of the country rock, a ridge (in form of a narrow band) or cliff may form. Where the opposite is true, rectilinear depressions, gullies or even small valleys may form.
6. Batholith and stock material is generally stable for any type of building or construction, although drainage

would present a problem because of its impermeability. Sills and dikes are again too small in areal extent for consideration except locally.

7. Soils in batholith and stock terrain are composed mainly of a granitic regolith. Very permeable and highly porous, nonresistant to erosion.

UNIT DESCRIPTION

Ige - Igneous volcanic (extrusive) rocks, to include lava flows, volcanic breccias, agglomerates, tuffs and any other pyroclastic deposits

GENERAL CHARACTERISTICS

1. Age: Primarily Cretaceous, Tertiary.
2. Consolidated to unconsolidated rocks, generally homogeneous.
3. Rock types named below indicate composition rather than lithology. Rocks commonly found in the region are basalt, latites, quartz latites, andesite and rhyolite.
4. Textures range from very fine to coarse grained. The fine grained texture is more predominant. Porphyritic textures and flow structures also are common.
5. Lava flows may produce lobate patterns and hummocky topography. Generally lack joint patterns. This type of unit usually produces irregular topography.
6. High permeability and porosity, but is a poor ground water source because of internal drainage. Exception: Tuffs form blanket patterns and usually produce a dendritic drainage pattern.
7. All rock types mentioned are fairly resistant to erosion except for tuffs.
8. Vegetation tends to be scarce on this type of unit.
9. Generally stable material for any type of building or construction except for tuffs and other pyroclastic rocks.
10. Stable to unstable on steep slopes.

GLOSSARY

- Agglomerate:** A pyroclastic rock containing a predominate of rounded or subangular fragments greater than 32 mm in diameter.
- Alluvium:** The general name for all types of sediments deposited in land environments by streams.
- Aquifer:** A body of permeable sediment or rock through which ground water can move; may or may not yield ground water in useful quantities.
- Areal Extent:** Horizontal area or extent of any rock unit exposed at the surface.
- Arenaceous:** Applied to rocks containing an appreciable amount of sand in its composition.
- Argillaceous:** Applied to all rocks composed of clay or having a notable proportion of clay in their composition.
- Attitude:** A general term to describe the relation of some directional feature in a rock or a horizontal plane.
- Aureole:** A zone surrounding an igneous intrusion in which contact metamorphism of the country rock has taken place.
- Basic:** A general descriptive term for those igneous rocks that are comparatively low in silica, about 50% to 55% is the maximum limit.
- Batholith:** A body of intrusive igneous material that covers an area larger than 40 square miles.
- Breccia:** A rock made up of highly angular, non-water worn, coarse fragments.
- Calcareous:** Containing calcium carbonate.
- Clastic Rocks:** Rocks consisting of particles of other rocks that have been transported by means of wind or water etc.
- Colluvium:** A general term applied to loose and incoherent deposits, usually at the foot of a slope or cliff

and brought there usually by gravity. Talus and cliff debris are included.

- Competent:** Applied to beds or groups of beds which, during folding, are able to lift not only their own weight but that of the overlying beds without appreciable internal flowage.
- Conglomerate:** A rock consisting of rounded, waterworn fragments or rock ranging in grain size from gravel to pebbles and cemented together by another mineral substance.
- Connate Water:** Water entrapped in the interstices of a sedimentary or extrusive igneous rock at the time the rock was deposited.
- Consolidated Sediments:** Those sediments which have been transformed into rock.
- Country Rock:** A general term applied to the rocks invaded by and surrounding an igneous intrusion.
- Dendritic Drainage Pattern:** A drainage pattern characterized by irregular branching in all directions with the tributaries joining the main stream at all angles.
- Detrital:** Said of minerals occurring in sedimentary rocks which were derived from pre-existing igneous, sedimentary or metamorphic rocks.
- Detritus:** Material produced by the disintegration and weathering of rock that has been moved from its site or origin.
- Dike:** A tabular body of intrusive igneous rock that cuts across the structure of adjacent rocks or cuts massive rocks.
- Dip:** The angle at which the bedding planes of a rock or any other planar features are inclined from the horizontal plane.
- Dip Slope:** A slope of the land surface which conforms approximately to the dip of the underlying rocks.

- Domal-Dome:** An upfold having the property of being roughly symmetrical; from a given point all beds dip more or less equally in all directions.
- Drift:** Any rock material, such as boulders, till, gravel, sand or clay, transported by a glacier and deposited by or from the ice or by or in water derived from the melting of the ice.
- Cacies:** a lateral subdivision of a bed or rock made on the basis of lithology.
- Feldspar:** A group of rock-forming minerals occurring in abundance.
- Feldspathic:** Containing feldspar as a principal ingredient.
- Fissile:** Easily split along closely spaced parallel planes.
- Fossiliferous:** Containing organic remains.
- Friable:** E Easily crumbled.
- Gabbro:** Generally a name for any coarse-grained, blackish-green to green, igneous intrusive rock. Common minerals are plagioclase and pyroxene.
- Gastropods:** Members of the phylum Mollusca, commonly called snails.
- Glaciofluvial:** Pertaining to streams flowing from glaciers
= or to the deposits made by such streams.
- Gneiss:** A common metamorphic rock that typically has a streaky appearance usually with distinct light and dark colored bands.
- Gravel:** Any accumulation of rounded, waterworn rock fragments.
- Heterogeneous:** Made up of different material or lithologies.
- Homogeneous:** Made up of the same material or lithology.

- Incompetent:** Applied to beds or groups of beds that lack strength and are therefore unable to lift their own weight or the weight above without breaking or deforming in some manner when undergoing such movement as folding.
- Joint:** Fracture in a rock, generally more or less vertical or transverse to bedding, along which no appreciable movement has occurred.
- Kame:** A hill composed of stratified gravel and, whose form is the result of original deposition modified by settling during the melting of glacier ice against or upon which the sediment accumulated.
- Karst Topography:** Irregular topography developed by the dissolving caves, irregular ridges and valleys, and internal drainage are generally characteristic.
- Knob & Kettle Topography:** Hummocky landscape; Topography consisting of irregular steep-sided, small hills and depressions, produced primarily by the melting of glacial ice.
- Lacustrine:** Produced by or belonging to lakes.
- Laminae:** Layering or bedding less than 1 cm thick in sedimentary rocks.
- Lens:** A body of rock thick in the middle and thin at the edges.
- Lithology:** The physical character of a rock.
- Massive:** Rock which lacks stratification or bedding planes, foliation or schistosity; Rock which has homogeneous structure.
- Marble:** A metamorphic rock formed by recrystallization of limestone.
- Matrix:** In a rock or sediment in which certain grains are much larger than the others, the grains of the smaller size comprise the matrix.

- Micaceous:** Containing mica.
- Mollusk:** General name applied to animals belonging to the phylum Mollusca which includes gastropods, pelecypods and cephalopods (snails, clams, squid).
- Out wash:** Drift deposited by meltwater streams beyond active glacier ice.
- Perched Water:** Ground water separated from an underlying body of ground water by an impervious layer. Perched water usually lies above the main ground water reservoir.
- Plutonic:** Applying to igneous rock that has formed beneath the surface of the earth by solidifying from a magma.
- Porosity:** The ratio of the volume of openings in a rock or soil to its total volume, usually expressed as a percentage.
- Porphyritic:** A textural term for those igneous rocks in which larger crystals are visible among smaller grained material.
- Pyroclastic:** A general term applied to detrital volcanic materials that have been explosively or aerically ejected from a volcanic vent. Also, a general term for the class for rocks made up of these materials.
- Regolith:** The layer or mantle of loose, incoherent rock material, of whatever origin, that nearly everywhere forms the surface of the land and rests on the hard or "bed" rocks.
- Shist:** A medium or coarse-grained metamorphic rock with parallel orientation of the micaceous minerals which dominate its composition.
- Schistose:** Textural term implying parallel alignment of mineral grains.
- Sericite:** A fine grained variety of mica occurring in small scales.

- Sill:** An intrusive body of igneous rock, relatively thin compared with its lateral extent, which has been implaced parallel to the bedding of the intruded rocks.
- Siltstone:** Fine grained clastic rock composed of particles of very fine to coarse silts.
- Slope Wash:** Soil and rock material that is being or has been moved down a slope predominantly by the action of gravity assisted by running water that is not concentrated into channels.
- Stock:** A body of igneous intrusive rock that covers less than 40 square miles.
- Stratigraphy:** That branch of geology which deals with the formation, composition, sequence and correlation of stratified or sedimentary rocks.
- Stromatolites:** Laminated, but otherwise structureless, calcareous objects; commonly thought to be fossil algae.
- Tuff:** A rock formed of collected volcanic fragments. Generally smaller than 4 mm in diameter.
- Ultra Basic:** Igneous rocks containing less than 45% silica; contain virtually no quartz or feldspar. Composed of ferromagnesian green in color.
- Vitreous:** Having the luster of broken glass, quartz calcite.

KEY TO SOIL ASSOCIATIONS OF LINCOLN COUNTY

Soils of the Mountains

1. Moderately steep to very steep, shallow to deep, well drained soils over argillite or quartzite rock of the mountains.
2. Steep and very steep, shallow to deep, well-drained soils over calcareous rock of the mountains.

LAND USE SUITABILITY MATRIX

Geologic Base Land Unit	Agriculture Productivity	Timber Productivity	Big Game Winter Range	Development on site sewage disp.	Development-construction in Gen.	Development on site water supply	Development side slope	Development soil erosion	Development fault lines	Develop. earthquake epicenters
Qa/Alluvium	H	H	L	O	O	M	H	L	H	M
Qg/Glacial Outwash	H	M-L	L	H	M-L	L	H	H	H	H
ssq Interbedded sandstone, quartzite, argillite	L	M	L	L	H	L	L	H	M	M
Qal/Glaciolacustrine Dep.	H	M-L	*L	M	*ML	*H	H	L	H	M
Is /Carbonate rocks	L	M	L	L	H	L	L	M	M	M
Qgm/Glacial Moraine	ML	ML	H	H	*HM	*M	M	Φ	H	H
U Igneous	L	ML	H	*M	O	L	M	L	L	L

* Symbol indicates general situation, but suitability is quite variable in this unit.

H = high
M = medium
L = low
O = not

Adopted from
Flathead County Preliminary
Land Use Plan

3. Moderately steep to very steep, shallow to deep, well to excessively drained soils over igneous rock of the mountains.
4. Moderately steep to very steep, shallow to deep, somewhat excessively drained soils over argillite or quartzite rock in the mountains. (Soils in this association number one, except that they are mostly in a higher rainfall area and the growing season is generally shorter.

Soils of the Valleys

5. Undulating to hilly, deep well-drained soils formed from glacial till in the valleys.
6. Gently sloping to moderately steep, deep, well-drained soils formed from glaciofluvial deposits in the valleys.
7. Nearly level to steep, shallow to deep, well to excessively drained soils formed from glaciofluvial deposits in the valleys.
8. Nearly level to moderately sloping, deep, well and somewhat excessively drained soils formed from glaciofluvial deposits in the valleys. (Soils in the association are similar to those in association number six, except that they formed in an area of higher rainfall.)

KEY TO SOIL ASSOCIATIONS OF MINERAL COUNTY

Soils on the Mountain Slopes

1. Andic Cryochrepts and Llic Andic Cryorthents (Holloway-Tamely Association, very cold phase): Very cold, light colored soils under forest at very high elevations on mountain crests and very steep upper slopes, over argillite and quartzite rocks. Dominated by a thin ash mantle on deep, very stony, acid silt loam and ash-mantled, deep, very stony, acid sand.
2. Andic Lithic Cryochrepts and Rockland (Cocrock-Rockland Association): Cold, light colored, forested soils on very steep mountain slopes at high elevations. Dominantly

shallow, acid silt loam over argillite and quartzite with associated rock outcrop.

3. Typic Cryochrepts and Rockland (Blacklead-Rockland Association): Cold solid of the high elevation mountain grasslands on granite bedrock. Dominated by deep, very gravelly, acid loam with a very thin, dark colored Al horizon and associated rock outcrop.
4. Typic Cryandepts and Aquic Cryoborolls (Truefissure-Wishard Association): Cold, deep soils on the forested mountain slopes over argillite and quartzite bedrock. Dominantly well drained, light colored, moderately thick, ashy over very cobbly, acid silt loam on steep slopes and poorly drained, dark colored, very cobbly, acid silt loam on moderately steep slopes.
5. Andic Cryochrepts and Udic Ustochrepts (Craddock-Drexel Association): Cold and moderately cold soils on forested, steep mountain slopes with thin ash mantle at high elevations and no ash mantle at intermediate elevations. Dominantly deep, light colored, very gravelly acid silt loam soils over hard shale bedrock.
6. Alfic Andic Cryorthents and Typic Entroboralfs (Tancly-Coldcreek Association): Soils on forested mountain slopes over argillite and quartzite bedrock. Dominantly cold, deep light colored, very stony, sandy, acid soils with thin ash mantle on steep slopes at high elevations and moderately cold, deep, light colored, stony loam neutral soils on moderately steep slopes at moderate-high elevations.
7. Andic Cryochrepts and Udic Ustochrepts (Holloway-Winkler Association): Soils on forested mountain slopes over argillite and quartzite bedrock. Dominantly light colored very stony silt loam acid soils with very thin ash mantle on cold, high elevation, very steep slopes and without ash mantle on moderately cold, moderately high elevation, very steep slopes.

Land Use Trends:

Eureka and North Eureka;

Eureka land use statistics are as follows;

		% of total
Street Alleys	90 acres	11
Residential	300 acres	38
Commercial	15 acres	2
Industrial	40 acres	5
Agricultural	250 acres	33
Public Facilities	50 acres	6
Vacant	40 acres	5
Total	785 acres	100

The residential property has a high percentage of old structures (see housing study) and a high evidence of non-conforming use (see map). If these trends continue there will be a general deterioration of all but a few residential areas. Since the residential area land allocation represents 40% of the total, a problem for the entire town with water and sewer systems support and maintenance will develop if these areas do not renew.

Commercial area is defined by a diverse type of business enterprise as well as diverse type of business structure, with 70% of the commercial area buildings being over 40 years old. There is a relatively high building vacancy rate about 15%, 6 vacant lots, plus a high incidence of commercial development

outside of town in North Eureka. A renewal of the down town is needed to protect the public investment in utilities, a further erosion of the tax base, and over use of class I agricultural land in North Eureka. Industry in Eureka is limited to the Tobacco River Lumber Company. There is a need to increase the industrial base of this area (see economic study).

Agricultural uses are limited to South Eureka. Some cattle range and horse pasture are the major uses. This area does not seem dynamic since the existing uses have predominated from the time Eureka was formed.

Vacant property is eighty percent located on plus twenty degree slopes which suggest marginal use potential. The remaining twenty percent of this land could and should be used for residential, commercial, and industrial uses.

North Eureka Land Use Statistics:

			percent
Streets and Alleys -	8.5 miles	50 acres	6
Residential Units -	150 units	350 acres	42
Agricultural Use Primary		400 acres	47
Commercial -	14	<u>40 acres</u>	<u>5</u>

Total 840 acres 100

- 1) Streets and alleys are layed out on a standard grid and are not maintained by the county.

- 2) Residential areas are mixed with commercial uses and repair shops and are on high value agricultural land.
- 3) Commercial uses are scattered in some cases directly conflicting with residential uses. These new commercial areas are contributing to the general physical and economic decline of the down town Lureka area.

Rexford:

Rexford land use statistics are as follows;

<u>Use</u>	<u>Acres</u>	<u>% of Total</u>
Streets	10	17
Residential	25	42
Commercial	2	3
Public	15	25
<u>Vacant</u>	<u>8</u>	<u>13</u>
Total	60	100

Residential development is improving through personal and public effort. One area at the south east corner of town is in non conformance with local deed restrictions and the state junk car law.

Commercial development is consolidated with a deed restricted area. However, if there is no further industrial development such as the Rexford Bench Recreation area or some light industrial use, the commercial area will not develop further.

The extent of the vacant area in Remford about 15% of the total area and about 30% of the commercial and residential areas, indicates that Remford must increase lot use to be able to maintain services in the long run.

Lincoln County - Community Areas;

Fortine - has general store, chain saw shop, a bar, church, school, post office, a small mill and about 30 residential units. No trend dynamics. Some residential structures need improvement and the water system needs repair. The large 1600 acre subdivision 6 miles south west of Fortine is not expected to develop until after 1985.

Trego - has general store, garage service station, community hall, post office, school and mobile home park. The mobile home park is about 2/3's empty due to completion of the railroad tunnel. There is no collection of standard dwelling units.

Stryker - has general store, post office. No trend dynamics. No collection of dwellings to exceed 4 units with in a 660 feet diameter density.

Yaak - Sylvanite - small store, several bars, post office, and two schools. Trend dynamics indicate substantial increase in subdivision activity in the lower Yaak. There are problems with sanitary restrictions on lots in flood plain of the Yaak River.

Lincoln County General:

Lincoln County land use statistics are as follows;

	<u>Acreage</u>	<u>Percent of Total</u>
Total Acreage	2,377,600	100
U.S. Government Forest-Reservoir	1,753,600	73.75
State of Montana Stillwater Forest School Sections	66,330	2.79
Large Forest Industry	322,618	13.57
Small Parcel Land Owners	235,168	9.9
Total Acreage	235,168	100, -1.9
Urban and Subdivision (under 10 acres)	14,000 (up 2000 acres from 1970)	5% - .05%
Timber	147,024	63% - 6%
Crop - Pasture Range	74,144	32% - 3%

Two major trends are combining to affect small land parcels and the resource base. The first is the taking of over 25,000 acres for the Libby Dam project and the proposed taking of 12,000 additional acres for game range. Both of these acquisitions of private land are severely restrictive of the native resource and preclude integrated public use. The second trend is vast subdivision

of timber resource land. While providing an increase in land available for development "recreational" type subdivision severely restrict resource maintenance and development. Further unless there is a real increase in the industrial and commercial base of the county, residential development will not provide even half of the tax support needed to fund the schools much-less other services.

The areas that have been subdivided and are in the process of being subdivided are shown on the land scape unit map.

A trend to reduce private economics use of the national forest coupled with the above mentioned trend to subdivide private timber resource land will reduce wood products industry.

An expanding need for mineral resources will stimulate local exploration on the international markets and development of marginal to good mines.

Recreation:

Jureka Census District - Local Public Facilities;

School Grounds - (6)

slides, swings, jungle bars,
fields, track-tennis courts,
gymnasium

Riverside Park:

picnic tables, water, fire
stands, restrooms, showers

Historic Village	restored general store (church school train station being restored) swings, slide, teter totor, water
Memorial Park	picnic tables, water
Old Fair grounds	little league ball field
Ponderosa Park	(proposed camping - picnic)

State of Montana

Carpenter Lake	picnic, restrooms, fishing, boating
Sophic Lake	picnic, restroom, fishing, boating
Loon Lake	fishing access
Marl Lake	fishing access
Glen Lake	camping, fishing access

U.S. Forest Service

Camp 32	camping, picnic
Rock Lake	-----
Little Therriault Lake	camping
Big Therriault Lake	camping, picnic, boating
South Dickey Lake	camping, picnic, boating
North Dickey Lake	camping, picnic, boating
Big Creek	camping, picnic

Private - Commercial

Bowling Alley	-----
Bull Lake Resort	boating, camping, cabins

Mountain View Ranch Outfitters	Hunting, horseback riding, camping
Lazy JO Ranch Camp - KOA	recreational vehicles, horseback riding, fishing
Crystal Lake Resort	fishing, golf, swimming, motel

Libby Census District - State of Montana

Savage Lake	picnic, fishing
Crystal Lake	picnic, fishing
Logan	general recreation

U.S. Forest Service

Timberlane	camping, picnic
Pleasant Valley	camping, picnic
Howard Lake	camping, picnic, boating
Paul Bunyan	camping, picnic
McGillivray	camping, picnic, boating

Private Commercial

St. Regis'

1) Old Lions Camp	camping, picnic
2) Libby Creek Camp Ground	camping, picnic
3) Carnigan Camp Ground	camping, picnic
Libby Archery Club	-----
Libby Gun Club	-----
Racquet - Swim Club	-----
Lake Ozaqa	fishing, picnic

Cabinet View Country Club	golf
Double H Ranch	fishing, picnic
Ben Baenen - Outfitter	hunting
Happy's Inn	swimming, picnic
Cihistle Stop	camping
Glen Leckrone - Outfitter	hunting
Squaw Creek Outfitters	hunting
Putt - Putt	miniature golf

Troy Census District - Local Public Facilities;

School Ground (except Troy's) - (3) grounds, swings, slides

U.S. Forest Service

Caribou	camping, picnic
Pete Creek	camping, picnic
Whitetail	camping, picnic
Red Top	camping, picnic
Yack Falls	camping, picnic
Kilbrennan Lake	camping, picnic, boating
Yaak	camping, picnic
Loon Lake	camping, picnic
Upper Pine Creek	camping, picnic
Turner Mountain	ski area
Dorr Skeels	camping, picnic, boating
Spar Lake	camping, picnic, boating

for unrestricted recreation. Fishing in over a hundred rivers and streams and over sixty lakes, hunting in thousands of square miles of wooded terrain, hiking, camping, waterskiing, snow skiing, ice skating, all need little formal planning to be enjoyed. The local recreational goal is fulfilled, therefore, except for the "over crowding" of the places where we used to be alone and in competition with nature.

The problem of having more than enough recreation, but enjoying it less because of a reduced quality of experience, does not yet relate to number but to care. Care should not be a "standard" but a philosophy to be followed. Therefore, if we care for the places where we recreate the supply will be adequate beyond 1985.

Mureka Census Division

Local Public;

Field observation of the school sites on a day - night basis from fall to winter - to spring indicate that at no time were the facilities over crowded. The reduced school population suggest that even the existing marginal use efficiency is declining. Winter use of the gymnasium is comparatively heavy, however, there are several nights a week of no use.

Riverside Park, a city park, located on the Tobacco River near town hall is used by tourists for over-night stops. This

park does reach maximum capacity for about 8 weeks in July and August. A recent expansion of the park by the addition of four sites should eliminate crowding. A plan for a sheltered cook area will further expand this facility. Any additional expansion must take place on the south or west side of the Tobacco River. No expansion is proposed until after 1960.

Historic Village and Memorial Park are oriented toward one hour visit use. No indication of overuse is apparent. Visitor hours rated at below 400 per day suggest that the anticipated capacities will not be reached until after 1985.

Ponderosa Park - no use - planned use for 20 picnic tables, a covered cook area, a play area, and 10 camper trailer spaces will begin to be implemented this year. Completion of this project is scheduled for 1976.

State - Federal;

Five state and seven federal improved public recreation sites exist. Discussion with state and federal agents and a review of available statistics indicate that no expansion is being planned at this time. All sites are considered adequate except a section of the North Dickey Lake site. "Improved sites require more care than the present use should need" is the most common statement. Implied, in the above comment, is a suggestion that less formal site improvement and less tourist

consolidation either promotes better care by the vacationing public or creates less of a problem for the Feds.

Private Commercial;

Except for the bowling alley all other commercial recreation is offered on a seasonal basis. Discussions with several of the owners indicate that income derived from their recreational business is not their major source of income. All owners indicate plans to expand their facilities. However, use statistics indicate that July is the heavy use month for travel related recreation and Spring and Fall is the best for outfitters.

Libby Census District

State - Federal;

Three state and nine federal recreation areas are sited in this census division. No over use or planned site development is reported. McGillivray, the new campgrounds on the Kootenai reservoir has received some use but certainly not over use. Expansion of the total recreational opportunity for water oriented sports on the "lake" could stimulate enlargement of the McGillivray area.

Private Commercial;

The staff recommends that monies allocated for study can be better spent by doing a primary level inventory of U.S.

Highway #2 oriented commercial recreation during the late fall of 1974. Increased use of these facilities is expected during the EXPO year, and detailed investigation this fiscal year will have marginal value. FY 75 investigations will offer considerable insight into the meaning and anticipated impact of the Corps of Engineers projections for the Libby Dam Recreational draw potential of 500,000 visitor days per year.

Existing commercial recreational businesses operate seasonally and as secondary incomes for the owners. Expansion seems predicted on Kootenai development.

Troy Census District

Local - Public;

Yaak area schools report need for additional indoor - winter oriented - recreational opportunity. There is a need for a gymnasium in the Sylvanite and Yaak schools. A basketball court size is considered an adequate standard.

Federal;

There are no state recreational sites on this census division, however, 14 federal sites certainly make up for the lack of state play areas. The Yaak area and the Bull Lake region sites are well used, however little over use, except at Borr Skeels is recorded. No site expansion is proposed.

Private Commercial;

Again Yaak River - Bull Lake oriented. Seasonal and part-time work. See economic study for more information of Private Commercial Recreation.

Conclusion

Local - Public;

Except for the Yaak area and Rexford's Ponderosa Park, no expanded need is projected until after 1985. The facilities, for the most part, are fairly new because of the U.S. Corps of Engineers dollar input for Libby Dam impact on schools. Use statistics show that formal play areas are little and after school hours. Organized summer and winter sports leagues are active but do not over-tax the facilities.

Proposed:

A complete re-evaluation of the federal proposals for the Libby Dam - Kootenai Reservoir Recreational Use must be undertaken. Forest projected use statistics have not proven close to the mark.

The "Proposed Public Use Plan for Libby Dam and Lake Kootenai, Montana" published by the U.S. Forest Service, listed TEN, PRIORITY ONE RECREATION AREAS for initial development and FIFTEEN, PRIORITY ONE RECREATIONAL AREAS for future development. Detailed site by site descriptions were written into the plan.

No development, except Mc Gillivray has been built and only one other Cripple Horse Creek, seems likely to proceed with development. If the cost-benefit ratios conducted by the US Corps of Engineers to justify the construction of Libby Dam are to be valid, additional capital costs will have to be incurred to support the anticipated recreational demand. For the key to successful commercial recreational expansion in all areas of the county is a successfully developed recreational opportunity on the "Lake".

The town of New Rexford was built because potential citizens were "reasonably confident" of direct federal investment on the Rexford Bench to implement the Federal Plan. If plans to offer substantial recreational opportunity are to be abandoned, then the cost-benefit ratios must be changed and some other method of mitigating the loss to local economic potential must be implemented.

Preliminary Land Use Recommendations

Eureka;

- Residential
- 1) Encourage support of incorporated town by developing local service and governmental organization cooperation to "renew" areas of blight.
 - 2) Reduce nonconforming uses by encouraging commercial and industrial development to centralize.
 - 3) Encourage the sale and construction of houses on vacant lots within the town limits.

- Commercial
- 1) Increase downtown parking areas, particularly for recreational vehicles.
 - 2) Encourage new business to locate down town by discouraging commercial uses in residential areas and in North Eureka. Tax incentives should also be explored.
 - 3) Renew old and dilapidated structures by establishing a theme or design style (historic village).
 - 4) Develop vacant lots for parking or garden areas for citizens and tourists.

Industrial Encourage the railhead area use:

- 1) By secondary wood products industry,
 - a. laminating and trim
 - b. chipboard
 - c. presto logs

- d. pole yard
- e. wood waste conversion to
electrical power.

2) By agricultural processors and trans-shipment users,

- a. abbatoirs (slaughter houses)
- b. hide processors
- c. tallow works
- d. alfalfa pellet mill
- e. ag. equipment supply
- f. bulk fertilizer supply.

3) In the area adjacent to the river on the west side and north of the 76 bulk plant, locate light industrial uses such as,

- a. electronic component manufacture
and assembly
- b. high skill craftsmen
- c. computer centers (hydro-electric
power reliability).

Agricultural uses - maintain as long as possible. The location of these uses add much to the entrance impression of the town. north Eureka:

Further residential development in this area should be discouraged until the town of Eureka is fully developed. Street and utility service should be improved by the formation of a county improvement district.

Commercial movement to this area, if not curtailed, will eventually replace down town Eureka as the retail trade center. If this is desired, then some other use must be established for the Eureka down town, or the public investment in services will be lost. Agricultural uses should be encouraged because of the high soil quality.

Rexford;

Residential - The vacant lots must be filled before Rexford will become even marginally viable economically. Services, capitol items, and school taxes will rise beyond the ability of the local property owners to pay, if the tax base in Rexford is not improved. The town deed restrictions plan is adequate to regulate land use if the plan is enforced.

Commercial - Development needs people to buy products. No expansion of the capitol investment in this area is predicted until the Rexford Bench Recreation area is established, the town vacant lots fill, or there is some substantial new industrial or residential area built within the trade area. Since the Rexford trade area is small, and area residents trade habits have been formed, quality service is the best method for retaining local expendable income.

Industrial - Although no area presently exists for industrial development, the staff recommends that either an area near the west boundary of town be designated for light industrial use or an area east of the school be so designated. Limited service line extention favors the west location and ease of access and the wind direction favors the east location. The wind direction should be considered

if noise, smoke or fumes are a factor of the new industry.

County Community Areas:

Since the completion of the rail tunnel south west of Trego the entire area south east of Bureka to the County line has stabilized physically and economically. The staff recommends that these communities plan for moderate residential increases and retain as much of their present character as possible.

The Yaak area, because of the narrow linear nature of private land ownership patterns, most of which have frontage upon the Yaak River, must beware of over developing the land and destroying the fragile nature of the alpine environment. Recreational development seems reasonable here but simplistic land development schemes will soon destroy the things that make this area unique and desirable. The staff recommends that all recreation developers, both residential and commercial, use the services of the local planner before the land is further divided. Planned unit analysis should occur for the best economic as well as physical development of this area. The staff also recommends that the open private lands in the upper or eastern Yaak area remain in forest use acreage.

County General Land Use Recommendations:

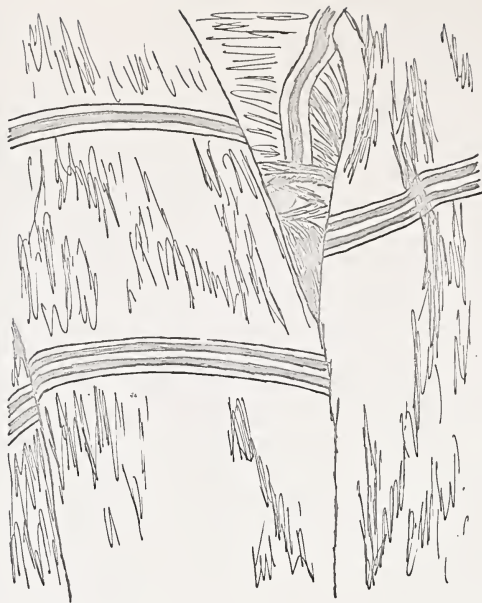
1. Declare a moratorium on recreation subdivision until special studies can be conducted by the state and county to determine their true impact.
2. Detail local involvement in the U.S. Forest Service Planning process to the end that the economic impact of

each plan can be determined and continually monitored.

3. Encourage more efficient use of timber and agricultural products and resources through equitable taxation and provision for less product waste.

The enclosed town maps, and the map entitled Land Scape Units, proposes land use within the limits of the private ownership areas.

Since existing land use use is constantly changing non-reproducible work maps are maintained showing specific land use. These maps use a four digit code and it is anticipated that computer display of this information will be coordinated with the state or region.



THE END

Let's discuss it

APPENDIX A

Public Education and Information

Presentations to:

- (1) Tobacco Valley Improvement Association
- (2) Tobacco Valley Grange
- (3) Eureka Senior Citizens
- (4) Eureka Hospital Association
- (5) Tobacco Valley Land Owners Association
- (6) Eureka Town Council
- (7) Rexford Town Council
- (8) Libby City - County Planning Board
- (9) Troy Improvement Association

Special meetings - April, 1974

- 1) Fortine - 20 attending
- 2) Eureka - 15 attending

News Releases and Reporting:

A total of 12 articles appeared in the Western News and the Tobacco Valley News concerning Planning related activities.

APPENDIX B

Current Planning and Referrals

The following are documents supporting the staff effort to assist local government

A Junk Car Plan was written - and is presently being revised. The documentation if available when this plan is printed will be attached to this section.

EUREKA ANNEXATION STUDY

The area north of Eureka was studied to determine the feasibility of annexing approximately 850 acres. The subject area is bounded by the Town of Eureka to the south, to the east and west by the lines of sections 11 and 14, and to the north by the line of section 11 all in township 36 north and range 27 west. The total area was divided into four sub-areas for study, based upon a preliminary review of each units taxable evaluation.

Annexation Recommendation: The staff recommends that the area known as Midvale and an area of the Stevens subdivision between 9th and 11th streets be annexed. The mitigating reasons for this recommendation are that 1) Town of Eureka water is being provided to Midvale, and the average per unit assessed valuation is close the average for the Town of Eureka.

The Stevens tract improvement requirements and the low assessed value per unit make this area undesirable for annexation at the present time. Although unit value is comparatively high in the area north of the Stevens subdivision, the distance between units and the uncertainty of further developmental patterns suggest a requirement for the over capitalization of water and sewerage service by the town in order to provide this area with any town services.

Annexation Policy Recommendations: A town is formed because the increased population densities found in a community setting provide for certain economies of scale for both public and private services. The people that live outside of the boundaries of a town enjoy many of the advantages of these economies without the disadvantages of having to pay in-town taxes.

Benefits such as: 1) nearness to town public and private commercial services, 2) extensive free use of town streets, 3) town water availability, 4) nearness to town parks, schools, and playgrounds, 5) private utilities; cable TV, moderate telephone, and electricity rates, and 6) locally based law enforcement, are all

available because the town is near. Advantages accruing to commercial and semi-industrial establishments, because of their location next to the center of commerce represent major benefits.

Town annexation of an area will provide increased services and benefits including: 1) water and sewerage service, 2) direct locally enforced law protection, 3) street improvement and maintenance, 4) fire protection and a 20% to 30% reduction in fire insurance rates, 5) the ability to elect local officials who answer directly to the local electorate.

The town council should establish a policy of actively seeking annexation of those areas which meet the criteria of town comparable unit valuation, and with a population density not less than two units per acre.

TAX STRUCTURE AND POPULATION DENSITY BY AREA

DIOWALE

Twenty units on ten acres equals two units per acre with an added population of 60 persons. Total collected tax equals \$1738.46 and per unit average tax of \$82.00. Street and alley mileage is $1\frac{1}{2}$ miles which should produce about \$710.00 in Gas Tax revenue for a total added revenue of \$2,448.56.

STEVENS BLOCK (Shown on attached map)

Eighteen units on nine and a half acres equals two units per acre with a population of 50 persons. Total collected tax equals \$1306.10 and a per unit average tax of \$73.00. Street and alley mileage is .5 miles which should produce about \$237.00 in Gas Tax revenue for a total added revenue of \$1543.70.

STEVENS SUBDIVISION

Fifty units on thirty-eight acres equals one unit for every $\frac{3}{4}$ acre. The population is 160 persons. Total collected tax equals \$2424.36 and a per unit average tax of \$25.00. Street and alley mileage is 2.5 miles which should produce about \$1184.00 in Gas Tax for a total added revenue of \$2449.19.

REMAINDER OF STUDY AREA: Thirty-four units or 750 acres equals one unit per 22 acres with a population of 220 persons. A total collected tax equals \$2708.81 and a per unit average of \$80.00. Ten commercial units on 50 acres equals one unit per 5 acres. Total collected tax is 2424.36 with average per unit tax of \$242.44. Thirty trailer units on 13.42 acres tax equals \$287.51-- grand land tax total is \$5420.68. Street and alley mileage is 4 miles which should produce \$1890.00 Gas Tax revenue. Overall tax totals \$7310.00.

STUDY AREA TOTALS:

150 residential units
12 commercial units
30 trailer court units
490 people
\$671.93 total land tax
\$4000.000 total Gas Tax.

Cost By Service

MIDVALE

Fire	Law	Parks	Roads	Sewer	Water
existing facilities and sewer vice will take care of this area.	existing facilities and service will take care of this area.	state subdiv-ision law requires 19 acres take care 200	resurface charge 3000 gas tax provides 710 need 2290	construct collection line cost 800 treatment cost 3000 total 11,000.	existing facilities and service supplied by town.
		100 per user	114.50 per user	550.00 per user	

ADMINISTRATION

show economy of increased scale
show economy of increased scale

50 per year
200 per year

10 per year
150 per year

in existing budget

in existing budget

MAINTENANCE

TOTALS CAPITAL COSTS \$18,290 or 764.50 per unit
YEARLY COSTS \$410.00 or 21.00 per unit

STEVENS BLOCK

Fire	Law	Parks	Roads	Sever	Water
existing facilities and service will take care of this area	existing facilities and service will take care of this area	state subresurface division law requires 9 acres 2000 need 100 per user	2000 gas tax provides 237.60 need 1762.40 1097.91 per user	construct collection line cost 7000.00 treatment cost 1000 total 8000.00 444.44 per user	existing city
ADMINISTRATION	SHOW economy in increased scale	show economy of increased scale	50 per year 200 per year	10 per year 100 per year	existing fee schedule
MAINTENANCE					

TOTALS CAPITAL COSTS 11,762 or 500.00 per unit
 YEARLY COSTS 360 or 20 per unit

1 - High

2

3 - Medium...priority

4

5 - Low

LINCOLN COUNTY

POWER USE PRIORITIES

BY SOURCE

Road Crew	Gasoline	Diesel	Heating Oil	Electricity ²	Wood
Road Construction (1)	3	3			
Cooling	5			5	
Heating			1	3	1
Inspection	2			2	
Lighting		2		1*	
Repair Roads (1)	1	1			
Repair Maintenance equipment				1	
Snow removal and sanding	1	1			
Courthouse					
*Travel (3)	3				
Cooling				3	
Equipment				1	
Repair-maintenance					
Equipment Use				1	
Heating			1	4	
Inspection				2	
Lighting				1*	
Maintenance Building					
Maintenance Grounds				3	

- 1 - Road construction and repair shall proceed according to the select system of county roads. Construction priorities shall be according to the State of Montana Highway department's General Highway map for Lincoln County as follows

Highest Priority:

1. Paved Roads
 2. Bituminous Road - low type
 3. Oil Penetration surfaced road
 4. Gravel or stone - Graded and drained
 5. Gravel or stone - not graded or drained
 6. Soil surface road - graded and drained
 6. Soil surface road - not graded or drained
 8. Unimproved road
 9. Primitive road
- 2 - Electricity use for lighting can be reduced by lowering the illumination in areas where reading or equipment repair concentration is not required. Lights should be turned off in unoccupied areas.
 - 3 - A travel roster will be maintained in the clerk and recorders office and any person taking all day or multi-day trips, within or outside of the county, shall enter name; destination; time of departure; and return; and number of rider spaces available. The Sheriff's department shall be excluded from this requirement.

M E M O R A N D U M

TO: KOOTENAI NATIONAL FOREST PLANNING STAFF

FROM: LINCOLN COUNTY UNITED PLANNING BOARD STAFF

SUBJECT: WEST KOOTENAI PLANNING UNIT #9 ALTERNATIVE MANAGEMENT

DATE: September 27, 1973

General

The county planning commission has authorized it's staff to comment upon all Forest Service Planning Unit Studies. This memo is directed to the West Kootenai Planning Unit #9.

First: it is the opinion of staff that the description of each planning unit must relate to a heirarchy of changing priorities at the national regional, and forest level in order to give such descriptions meaning and context.

Example: the variation in the required timber harvest is directed by the national office re: The Nixon Administration's attitude on the Nations Forests - Congressional Record - July 28, 1973 - S-14955-60

Second: inter-planning unit relationships must be defined in order to develop an awareness for the likely results or influences that planned or catastrophic actions occuring in one unit will have on other planning units.

Example: the "management guidance" on the water resource phase of the Bureka Graves Creek Unit #2 will have impact upon the water management in Alkali #33, Pinkham #18, and West Kootenai #9, since the primary water source for the Tobacco River heads in Unit #2. Further, other interrelated systems such as road ways, air, land use, and recreation may have potential for similar influences and should be keyed to the "source" unit management decisions.

Third: a standard system of analysis, would if carried throughout the recommendations, add continuity and clarity to Forest Service recommendations.

Example:

Existing Characteristics

- A. timber and forest products (floral types rare and endangered species)
- B. range management - agriculture
- C. fisheries/wildlife (faunal types rare and endangered species)
- D. recreation
- E. minerals (solid topographical and geological features and limitations)
- F. roads and trails (expanded to all roads ie. State Hwy #37)
- G. (air - climate macro micro)
- H. special uses
- I. (human habitations and cultural patterns)
- J. (industrial uses)
- K. (aesthetics and human interest)

Each of the characteristics should be clearly and separately defined in each management unit and the alternatives that are offered should be concerned with each characteristic rather than vice-versa.

Sub-example 1.

A. ALTERNATIVE TIMBER USE		PLUS		OF		BEST		FOOTPRINT UNIT		US	
1. USE DEFINITION	use ¹ desc.	2	3	4	5	6	7	8	9		
2. "	"										
3. "											

Subjective	yearly	yearly
rotary	to include	include
scale	economic	alternative
	projection	formula
	and formula	

A system of cross referenced impactors can be used to create the alternative use definitions.

Sub-example 2.

A. Timbers Use Definitions B. Range Use C. Etc.

a. Biological	1.
	2.
Controls	3.
b. modified	1.
	2.
habitat	3.
c. Alteration	1.
& ground	2/
cover	3.
d. Stream	1.
Control &	2.
flow	3.
modifications	1.
	2.
e. Etc.	3.

It is possible that this method of "alternative" presentation would fall within the direction for "alternative" use by the national Forest Service office.

Staff recommendations based upon Forest Service Format

General

Confusion arises from the lack of uniform presentation method in that alternatives are not strictly comparable.

Recommendation: Alternative "A" with the second paragraph of "B" replacing the second paragraph of "A". Recreational emphasis in certain management units will optimize economic integration of this area.

Management unit #1 recommendation "A"

#2	"A" "C"
#3	"A"
#4	"A"
#5	"A"
#6	"B"
#7	"A"
#8	"A"
#9	"B"

Omissions:

Plan does not include US Corps of Engineers plan to support the State of Montana Department of Fish and Game's plan for the Murray Springs fish hatchery. Also omits soil conservation district study for use of Kootenai water for irrigation.

SUGGESTED INPUT FORMAT FOR THE KOOTENAI NATIONAL FOREST
PLANNING UNIT STUDIES

1. The staff of the Lincoln County United Planning Board hereby recommends that the planning unit studies presently being developed by the Kootenai National Forest's Multiple Use Planning Staff be put into perspective by defining the heirarchical and peer unit inter-relationships that seem necessary for detailed analysis and understanding.

For example: Since National, Regional, and Forest level resource allocation priorities are dynamic, some method for defining this changing impact on local resources is needed to give the proper background for decision making. Inter - forest, forest - planning unit, and inter - planning unit dependencies should also be illustrated so that local appreciation for the wholistic approach to problem solving may be developed.

2. It is further recommended that the Forest Service condider the us of a miltiple phase planning unit presentation in lieu of the A-B alternative plans that are presently being employed. We feel that by using a multiple phase presentation each planning element of the unit suudy can be designed to receive public input while at the same time providing for the continuing refinement of analysis techniques.

For example: In lieu of the existing A-B choice the general public and governmental agencies will have an opportunity to respond, using a standard format, to any part of, or all of the unit plan.

3. The method of planning unit presentation by the Forest Service, therefore, should, in our opinion, be coordinated with the method for receiving comment by the interested publics.

Planning Unit Input Format - Continued

For example: A one-to-ten impact scale that is backed by the systems analysis already developed by the Forest Service that is presently a matrix format seems a sound method for portraying inter and intralelement relationships. The public input system could then exactly duplicate the Forest Service presentation model by responding with the same numerical value system. Each number value would be qualified (weighted) by the support documentation offered by either the Forest Service or the public. Subjective and objective totals could then be computed and set in a scale for future reference. This scale will offer a continuing guideline for program refinement with increased objectivity as the goal.

A sample matrix design is attached which offers a limited insight into the proposed presentation-comment system.

Selected Bibliography

The California Tomorrow Plan, Cry California - 1972

Design With Nature, Ian L. McHarg - 1969

Ecology and the Economy, Pacific Northwest River Basin Commission - 197

Environmental Planning and Geology, US Depts of HUD and Interior - 1971

Forest Landscape Management, Northern Region USFS - 1972

Quantitative Analysis of the Visual Resource, Northern Region USFS -
1973

A Procedure for Evaluating Environmental Impact, US Dept of Interior -
1971

Special reference: Bureau of Outdoor Recreation Land Classes - 1964

A PLAN FOR DISPOSING OF JUNK CARS IN LINCOLN COUNTY, MONTANA

I. Timetable for meeting law requirements

The attached "Junk Car Study Plan Work Program and Budget" is completed with the submission of this check list. The timetable for accomplishing the elements of the plan are as follows

Task I Mapping - scale 4 inches to the mile USGS quads show all junk car locations outside of the incorporated town limits. Available town maps show junk cars within town limits.

The maps used are field maps and non-reproducible, but subject to inspection by interested parties.

Task II Field Survey - This survey was accomplished as part of an overall land use survey. Each junk car was identified in the following manner: JC-1 equals one junk car JC-4 equals four or more Junkers.

Task III Violation List - Using county records the field mapping is being correlated with owners and addresses. A priority assignment is given JC-4 in order that the more critical problems are being identified first.

Task IV Short Term Plan - The county owned site that formerly served as the Troy area dump will be used to stockpile vehicles from the Troy, Bull Lake and the Yaak areas. The leased sanitary landfill at Libby will be the collection point from Libby and south along Highway #2. The Eureka landfill will be used as the "graveyard" for the Tobacco Valley. Auto Graveyard site management

Screening - The Libby and the Troy sites have private access roads and can not be seen from a public road because of existing natural screens. The Eureka site is shielded by natural features except for a short length (150 yds) of newly constructed elevated road way. Because this road is in the process of being completed the feasibility of constructing a permanent fence is limited by the process of road settling. Problems of snow removal will also be compounded by the placement of a fence. A temporary test snow fence, or other screen will be used until a permanent fence or other screen is possible.

Lincoln County Junk Car Plan continued.

Record Keeping - A release form signed by the owner or the County Sheriff and initialed by the County Assessor will be collected at the graveyards by the attendant, at the car pickup point by the retrieval operator. These forms will be kept in the Office of the Project Director.

Log sheets will be kept at the sites and each car deposited will be recorded on these sheets. A description of the vehicle and the original location of the car will be recorded. A number corresponding with the log sheet number will be painted on the car for positive identification.

Action Plan

Using the violation list all major junk car yards and places with four or more vehicles will be notified by mail or by personal contact of their obligation under the law. Compliance will be requested within a time frame that relates to the individual case. For example: large established yards with substantial screening to be accomplished will be given 90 days to complete screening. A 30 day requirement to remove vehicles or screen will be given to most other violators. Licensing will be required within 30 days for all of those in violation.

A media campaign will be developed to reach the general public and the people with three, two or one junker. The media release will detail the requirements of the law, the location and hours of operation of disposal sites, the telephone number of the Project Director, and offer free pickup of all junk cars in Lincoln County.

Based upon the response to the media effort, based upon the number of cars and the original locations of the cars being brought in, an evaluation of the program will be under taken in six months. If the program is deemed a success a decision will be made about the degree of field enforcement of the law.

Field Pickup

The County Sanitarian will be the Project Director and his office will be the contact point for the general public, affected citizens, and the retrieval vehicle operator. A field pickup schedule will be developed using the information gathered during the first two weeks of calls and personal contracts.

Lincoln County Junk Car Plan continued.

A reconditioned county truck will be turned into a retrieval vehicle and a surplus trailer will retrieve three to four junkers at a time.

Task V Long Range Plan- The long range plan will be flexible according to the success of the pickup system. If at the end of the first six months trial period the project is deemed a success, field pickup will continue for two years. If limited success is experienced an intensified media program and individual and mail contact will be initiated. If the intensified effort is a success the two year target date will be maintained, if we are not successful the free pickup service will be discontinued.

After the two year program is completed or if the six to nine month program fails, emphasis will be transferred to the individual violator's responsibility to comply with the purpose and intent of the law.

The long term budget will emphasis individual grave yard development to increase efficiency, intersite consolidation of vehicles and enforcement of the law.

APPENDIX C
Economic Base Questionnaire

This questionnaire represents a method for updating economic base data.

The local Employment office and the County Welfare office offer continuing employment **statistics**. The Information systems Bureau of the State Department of Intergovernmental Relations also publishes regular economic data.

No formal system for updating economic data is presented herein because there is a presentation for the creation of such a system by the Western Montana Regional Planning Association before the nine counties.

ECONOMIC BASE QUESTIONNAIRE

1. Name of organization, local and main office locations;
2. Number of units of raw material processed by your plant annually
(board feet or tons)
3. Principal products listed - value added to each product in percentage
figures from non-processed raw material or by gross value added
(all products together).
4. Principal variables used to predict future activity patterns:
 - a. Automation; increase, decrease
 - b. Future manpower needs; increase, decrease
 - c. Change in Processing techniques
 - d. Change in products
 - (1) primary
 - (2) secondary
 - (3) resource base
5. Sources of major goods and services;
 - a. import goods and services from your own or integrated
company (percentage of total)
 - b. import goods and services from other suppliers by location
(percentage of total).
 - 1) Lincoln County
 - 2) State of Montana
 - 3) Northwst U.S.
 - 4) Southwest U.S.
 - 5) North Central U.S.
 - 6) South Central U.S.

ECONOMIC BASE QUESTIONNAIRE - continued

5. b.
 - 7) Northeast U.S
 - 8) Southeast U.S.

6. Production output by product and destination or by gross product distribution:
 - a. Lincoln County
 - b. Montana State
 - c. Northwest U.S.
 - d. Southwest U.S.
 - e. North Central U.S.
 - f. South Central U.S.
 - g. Northeast U.S.
 - h. Southeast U.S.

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